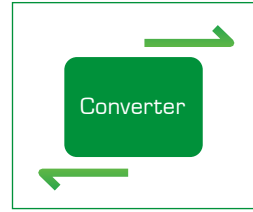
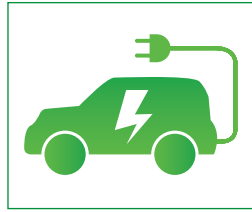
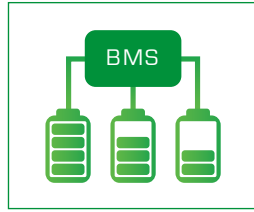


SMD Inductive Components



Automotive
Grade



ABC-ATEC Electronics Group
ABC Taiwan Electronics Corp.

COMPANY HISTORY

ABC TAIWAN ELECTRONICS CORP. is one of the leading manufacturers for quality inductors and transformers. We specialize in design and manufacturing electromagnetic components for various industries — Telecommunication, Industry Controls, Automotive products, and, Consumer etc.

In 1979, forty-three years ago, ABC was established in YANGMEI district. People here are diligent and hardworking. We gathered a competent and dedicated team applying the latest technology to cater design-in parts, deliver high level of services, and provide good quality products for our customers.

Our innovative product development allows us to offer fast service, excellent quality parts and competitive price to match our customers' needs. ABC's ultimate goal is to achieve total customer satisfaction through continuous improvement and development.

ARBUTUS (YANGMEI), in Chinese) a beautiful, luxuriant and whole year green tree, two hundreds years ago, immigrants arrived here, they found all the field in this valley were **ARBUTUS (YANGMEI)**, so, they called this town—**YANGMEI**.



1979

- **ABC TAIWAN ELECTRONICS CORP.** was founded in Hsiotsai Rd., Yangmei, Taiwan capital
- NT\$ 5,800,000(US\$145,000) and 5 employees Started producing choke coil in Sep.

1980

- Moved to Kuanghwa St., Yangmei, and 15 employees.
- Land acquisition of No.422, Sec.1 Yangfu Rd..

1981

- Started factory building construction.
- Acquired the second prize of good supplier from CANON.

1982

- Factory building completed and Axial Lead Choke Coils conformal coating auto processing line initialed.
- Capital increase to NT\$6,115,000(US\$ 152,875) and forty-seven employee.

1984

- EMI Filter and DC-DC Converter entered U.S.A., Singapore & UK Market.
- Started the R/D for EMI Filters and DC-DC CONVERTERS entered U.S.A., Singapore & UK Market.

1990

- New design CM series Wound Chip Inductor R&D completed and started production.

1991

- CM chip inductor series was awarded 4 years tax exemption from Taiwan government.
- CM chip inductor series patent certificated in Germany #G9108527.6 and Taiwan #66599.

COMPANY HISTORY

1995

- China Factory - ABC ELECTRONICS (PANYU) CORP. Started production (March 29, 1995).

2000

- ABC Electronics (Panyu) CORP. 2nd factory grand opened.
- Started Taiwan HQ building expansion.
- Starting Stock Initial Public Offer (IPO) processed.
- Overall Employee beneficial share system started.
- Acquired the Good Supplier Award from Garmin.

2001

- Acquired the 10th National Award of Small and Medium Enterprises.

2004

- MPC for High Frequency Capacitor patent certificated in Taiwan #188853 & #210097.
- Ceramic Heat Sink with Micro-pores Structure patent in Taiwan #189036, #213446 & #220351.
- Ceramic Heat Sink with Micro-pores Structure patent in Germany #20314728.6, Japan #3100267 & USA #US6705393B1.
- ABC Electronics (Shanghai) Factory. started production.
- Became a public trade company, Stock Listed in Taiwan Gretai (OTC) Securities Market.

2006

- Automotive Quality System TS 16949 Certificated.

2007

- Hazardous Substance Process Management IECQ QC 080000 Certificated.

2008

- Micromesh (Micro-pores) Material Producing Method Patent certificated in China #ZL 02 1 49137.2 (Aug. 6, 2008).
- Set up Precision Metal Parts Div., Factory located in Pingjhen Industrial Park. (Jan. 1, 2008).
- Opto-elec & Mechanic Components Div. launched 5 new models LED Shaped Lamps, and Stared OEM/ ODM business. (Apr.).
- MES(Manufacturing Executive System) introduced into Shanghai factory (Nov.).

2009

- Started high current inductor, HP series production.
- Battery Cap improvement awarded 2 patents in Taiwan.

2010

- MPC Heatsink was designed in the Samsung 2.8 cm Super Slim LED TV, launched in Q1.

2012

- Officially took over AOBA Technology as a subsidiary (2012.04.01).

2013

- Customer Approval for contract manufacturer with integrated mass production and quality control

COMPANY HISTORY

2014

- MCU product entered automotive market.
- For Ethernet application, Common Mode Choke patent acquired in Taiwan and China, and started production.

2015

- ASF products massed production.
- DP product line set up and promoted to market.
- Common Mode Filter and Core patents acquired in Germany.

2016

- ABC Shanghai and Malaysia factory - AOBA Technology, TS 16949 Certificated.

2017

- ABC Taiwan IATF 16949 Certificated.

2018

- Yangmei II Factory Started Production (2018.04.01).
- IECQ QC 080000 : 2017 Certificated.

2019

- ISO 14001 Environmental Management System Re-certificated
- Yangmei II Factory started Ethernet EMI Common Mode Filters and Monolithic Power Inductors Lines Set up & Trial Run (2019.12.05).

2020

- Common mode line filter AQF series launched for EMI noise suppression and automotive standard qualification.
- E-field Shielded High Current Power Inductor HS series lanuched.

2021

- Joined the Mobility In Harmony (MIH) platform alliance and became Open EV Alliance member (2021.03.30).

2022

- ABC-ATEC Group completed the first greenhouse gas inventory and passed the third-party verification (2022)
- Join Taiwan Climate Partnership(2022.08.04)
- ABC-ATEC received a Two-Star Award for Excellence in Management Quality.(2022.11.05)

2023

- LTCC Product Trial run and Sample Making(2024.Q4)
- Headquarters obtained ISO 17025 certification, expected to be available in February 2024.(2023.12)

2024

- ABC-ATEC's first solar power supply system was put into operation for self-consumption

Figure	Profile	Type	Dimension (LxWxH mm)	Inductance / Impedance	Rated Current	AEC-Q200 Grade	Page
RF Inductor - Ceramic Wire Wound Chip Inductor							
	RF Ceramic	SWI0402CT-A1	1.0 x 0.55 x 0.5	1.0 ~ 120 nH	1360 mA ~ 110 mA	Grade 1	1
		SWI0603CS-A1	1.65 x 1.15 x 0.9	1.6 ~ 680 nH	700 mA ~ 100 mA		1
Power Inductor - Wound Chip Inductor							
	High Current	ACC3225	3.2 x 2.5 x 2.2	1.0 ~ 100 μH	4.0 A ~ 0.15 A	Grade 1	5
		ACC4532	4.5 x 3.2 x 3.2	1.0 ~ 1000 μH	2.3 A ~ 0.09 A		5
Power Inductor - Shielded Molded Inductor							
	Molded - High Current	MHE0630-T	7.1 x 6.6 x 3.0	0.33 ~ 33 μH	30 A ~ 2.5 A	Grade 0	8
		MHE0640-T	7.1 x 6.6 x 4.0	1.0 ~ 68 μH	14 A ~ 2.0 A		8
		MHE1040-T	11.5 x 10 x 4.0	2.2 ~ 100 μH	18 A ~ 2.0 A		8
		MHE0630-Q	7.1 x 6.6 x 3.0	0.1 ~ 10 μH	70 A ~ 7.0 A		11
		MHE1040-Q	11.5 x 10 x 4.0	0.68 ~ 47 μH	35 A ~ 3.5 A		11
	Molded - Coupled	MCH1040-S	10.15 x 10.8 x 4.0	2.2 ~ 33 μH	15 A ~ 2.5 A	Grade 1	14
	Mini High Current	ADP2016-E	2.0 x 1.6 x 1.0	0.24 ~ 4.7 μH	7.99 A ~ 1.94 A	Grade 1	16
Power Inductor - Semi - Shielded Inductor							
	Semi - Shielded	MSN3030	3.0 x 3.0 x 3.0	1.0 ~ 100 μH	5.0 A ~ 0.25 A	Grade 0	19
		MSN4020	4.0 x 4.0 x 2.0	0.22 ~ 100 μH	21 A ~ 0.7 A		19
		MSN4030	4.0 x 4.0 x 3.0	1.0 ~ 100 μH	7.8 A ~ 0.7 A		19
		MSN5030	5.0 x 5.0 x 3.0	0.47 ~ 100 μH	10 A ~ 0.65 A		19
		MSN5040	5.0 x 5.0 x 4.0	1.5 ~ 47 μH	7.0 A ~ 1.3 A		19
		MSN6045	6.0 x 6.0 x 4.7	0.55 ~ 100 μH	18 A ~ 1.2 A		19

Figure	Profile	Type	Dimension (LxWxH mm)	Inductance	Rated Current	AEC-Q200 Grade	Page
Power Inductor - Semi - Shielded Inductor							
	Semi - Shielded	TPI4018CT-A1	4.0 x 4.0 x 1.88	0.82 ~ 220 μH	4.2 A ~ 0.3 A	Grade 1	25
		TPI6045CT-A1	6.0 x 6.0 x 4.5	1.0 ~ 330 μH	8.6 A ~ 0.45 A		27
		MRN8040	8.15 x 7.9 x 4.2	0.5 ~ 100 μH	15 A ~ 1.3 A	Grade 0	30
Power Inductor - Non - Shielded Inductor							
	Non - Shielded	AER0403	Ø4.5 x 4.0 x 3.2	1.0 ~ 68 μH	4.8 A ~ 0.4 A	Grade 0	32
		AER0604	Ø5.8 x 5.2 x 4.5	1.2 ~ 220 μH	6.0 A ~ 0.47 A	Grade 1	32
		AER0805	Ø7.8 x 7.0 x 5.0	1.5 ~ 470 μH	6.5 A ~ 0.4 A		32
		MER1006	Ø10 x 9.0 x 5.4	1.8 ~ 820 μH	7.7 A ~ 0.48 A	Grade 0	32
		ASB7030	7.0 x 7.0 x 3.0	1.0 ~ 680 μH	4.3 A ~ 0.18 A	Grade 1	39
Power Inductor - Shielded Inductor							
	Standard	AQS3818	3.8 x 3.8 x 1.8	1.0 ~ 220 μH	3.6 A ~ 0.26 A	Grade 0	41
		AQS4818	4.8 x 4.8 x 1.8	1.0 ~ 47 μH	5.1 A ~ 0.75 A		41
		AQS4828	4.8 x 4.8 x 2.8	1.2 ~ 390 μH	5.0 A ~ 0.35 A		41
		AQS5818	5.8 x 5.8 x 1.8	1.5 ~ 220 μH	4.8 A ~ 0.33 A		41
		AQS5828	5.8 x 5.8 x 2.8	2.6 ~ 1000 μH	4.5 A ~ 0.21 A		41
		AQS6822	6.8 x 6.8 x 2.3	1.0 ~ 1000 μH	5.8 A ~ 0.28 A		41
		MQS3228	3.3 x 3.3 x 2.8	10 ~ 100 μH	1.1 A ~ 0.3 A	Grade 1	50
		MQS3828	3.8 x 3.8 x 2.8	3.3 ~ 100 μH	2.5 A ~ 0.48 A		50
		MQS5228	5.2 x 5.2 x 2.8	1.2 ~ 1000 μH	5.2 A ~ 0.21 A		50
		MQS6828	6.8 x 6.8 x 2.8	2.5 ~ 1000 μH	4.9 A ~ 0.3 A		50
		MQS6838	6.8 x 6.8 x 3.8	1.0 ~ 100 μH	6.8 A ~ 1.1 A		50

Figure	Profile	Type	Dimension (LxWxH mm)	Inductance /impedance	Rated Current	AEC-Q200 Grade	Page	
Power Inductor - Shielded Inductor								
	Standard	MBS0703	7.3 x 7.3 x 3.5	10 ~ 1000 μH	2.1 A ~ 0.17 A	Grade 0	56	
		MBS0704	7.3 x 7.3 x 4.5	10 ~ 1000 μH	2.5 A ~ 0.24 A		56	
		ASU3028	3.3 x 3.5 x 2.8	10 ~ 47 μH	860 mA ~ 380 mA	Grade 1	62	
		ASU5028	5.2 x 5.2 x 2.8	1.2 ~ 100 μH	3500 mA ~ 470 mA		64	
		ASU6025	6.2 x 6.5 x 2.5	1.2 ~ 220 μH	4000 mA ~ 420 mA		64	
		ASU8028	8.0 x 8.0 x 2.8	2.5 ~ 100 μH	4.5 A ~ 0.7 A		64	
		ASU8045	8.0 x 8.0 x 4.5	3.5 ~ 100 μH	5.0 A ~ 0.92 A		64	
		ASU1028	10 x 10 x 2.8	1.0 ~ 150 μH	8.0 A ~ 0.65 A		64	
		ASU1038	10 x 10 x 3.8	1.5 ~ 330 μH	7.2 A ~ 0.55 A		64	
		ASU1048	10 x 10 x 4.8	1.5 ~ 330 μH	7.2 A ~ 0.52 A		64	
		ASS7032	7.0 x 7.0 x 3.2	2.2 ~ 1000 μH	2.65 A ~ 0.15 A	Grade 1	72	
		ASS1210	12 x 12 x 10	1.0 ~ 1000 μH	16.5 A ~ 0.7 A		74	
		ASS1260	12.5 x 12.5 x 6.0	1.0 ~ 1000 μH	10 A ~ 0.6 A		77	
		ASS1280	12.5 x 12.5 x 7.5	2.4 ~ 1200 μH	12 A ~ 0.65 A		77	
		High Performance	ACU1048	10 x 10.2 x 4.8	0.68 ~ 470 μH	13.5 A ~ 0.7 A	Grade 0	82
			MCU1277	12.5 x 12.8 x 7.7	22 ~ 470 μH	5.8 A ~ 1.2 A		85
			MCU1255	12.1 x 12.5 x 5.5	22 ~ 470 μH	4.8 A ~ 1.0 A		85
			MCU1040	10 x 10.2 x 3.8	1.0 ~ 680 μH	12 A ~ 0.48 A		85
			MCU1060	10 x 10.2 x 6.0	3.3 ~ 680 μH	8.4 A ~ 0.55 A		85
			MCU6045	6.0 x 6.3 x 4.5	1.0 ~ 470 μH	6.7 A ~ 0.28 A		85
			MCU7045	7.0 x 7.4 x 4.5	1.0 ~ 470 μH	8.5 A ~ 0.41 A		85
		Coupled	MBF0703	7.6 x 7.6 x 3.4	4.7 ~ 1000 μH	3.78 A ~ 0.25 A	Grade 0	91
	MSF1258		12.5 x 12.5 x 6.0	0.47 ~ 1000 μH	33 A ~ 0.70 A	Grade 1	94	
	MSF1278		12.5 x 12.5 x 8.0	0.47 ~ 1000 μH	56 A ~ 1.14 A		94	

Figure	Profile	Type	Dimension (LxWxH mm)	Inductance /Impedance	Rated Current	AEC-Q200 Grade	Page
Common Mode Choke / Data Line							
	Data Line EMI Solution	MSF3225-S	3.2 x 2.5 x 2.4	2.2 ~ 15 μ H	1.2 A ~ 0.7 A	Grade 1	98
		MSF3225-B	3.2 x 2.5 x 2.4	22 ~ 100 μ H	0.4 A ~ 0.15 A		98
		MSF3425-E	3.4 x 2.5 x 2.4	51 ~ 100 μ H	0.4 A ~ 0.2 A	Grade 0	102
		MSF3425-D	3.4 x 2.5 x 2.4	51 ~ 130 μ H	0.6 A ~ 0.3 A	Grade 1	102
		MSF3425-B	3.4 x 2.5 x 2.4	200 ~ 200 μ H	0.25 A ~ 0.25 A		102
		MSF4532-D	4.5 x 3.2 x 3.0	51 ~ 100 μ H	1.0 A ~ 0.5 A	Grade 2	106
		ASF4532-E	4.5 x 3.2 x 3.0	200 ~ 200 μ H	0.11 A ~ 0.11 A	Grade 1	108
		ASF4532-C	4.5 x 3.2 x 3.0	11 ~ 100 μ H	0.36 A ~ 0.2 A	Grade 0	108
		MSF9050	9.2 x 6.0 x 5.0	10 ~ 6500 μ H	1.6 A ~ 0.3 A	Grade 2	112

Common Mode Choke / Power Line							
	Power Line EMI Solution	AQF7035	7.0 x 6.0 x 3.5	225 ~ 1800 Ω	5.0 A ~ 1.2 A		114
		AQF9045	9.0 x 7.0 x 4.5	500 ~ 500 Ω	5.0 A ~ 5.0 A	Grade 1	114
		AQF1260	12 x 11 x 6.0	350 ~ 1100 Ω	10 A ~ 4.8 A		114
		AQF1560	15 x 13 x 6.0	550 ~ 3000 Ω	10 A ~ 3.2 A	Grade 1	119

Part Number Expression

M or A	MHE	0640	330	M	P	B	-			
0	1	2	3	4	5	6				7

1	Product Type		
2	Dimension		
3	Value	Code	Define
		1N2	1.2 nH
		14N	14 nH
		R14	0.14 μH / 140 nH
		2R2	2.2 μH
		100	10 μH / 10 Ω
		201	200 μH / 200 Ω
		211	210 μH / 210 Ω
		102	1,000 μH / 1,000 Ω

4	Tolerance	Code	Define
		B	± 0.1 nH
		C	± 0.2 nH
		D	± 0.3 nH
		G	$\pm 2\%$
		H	$\pm 3\%$
		J	$\pm 5\%$
		K	$\pm 10\%$
		M	$\pm 20\%$
		Y	Others
5	Classification		
6	Packing code		
7	Reference code		

Part Number Expression for SWI, PWC, LPI, HCI, TPI Types

SWI	0402	C	T	3N9	J	-	A1
1	2	3	4	5	6		7

1	Product Type		
2	Dimension		
3	Material Type	Code	Define
		C	Ceramic
		F	Ferrite
		P	Ferrite with Magnetic Shield
		S	Shielded
		H	Non-Shielded
4	T or S for taping		
3+4	Material Type	Code	Define
		HP	High Current
		HQ	High Q

5	Value	Code	Define
		1N2	1.2 nH
		14N	14 nH
		R14	0.14 μ H / 140 nH
		2R2	2.2 μ H
		100	10 μ H
6	Tolerance	Code	Define
		B	± 0.20 nH
		S	± 0.30 nH for SWI $\pm 25\%$ for PWC
		G	$\pm 2\%$
		J	$\pm 5\%$
		K	$\pm 10\%$
		M	$\pm 20\%$
		N	$\pm 30\%$
7	Automotive		

COMMON MODE CHOKE – AQF SERIES

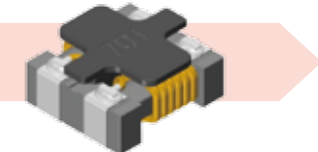
Dimension
W x L x H (mm)

15 x 13 x 6



AQF1560

12 x 11 x 6



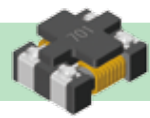
AQF1260

9 x 7 x 4.5



AQF9045

7 x 6 x 3.5



AQF7035

1 3 5 7 9 11

Current (A)

About AQF Series

ABC CMC (Common Mode Choke) AQF Series are designed for EMI common mode noise reduction with good countermeasures to comply with CISPR-25 radiated emission requirements.

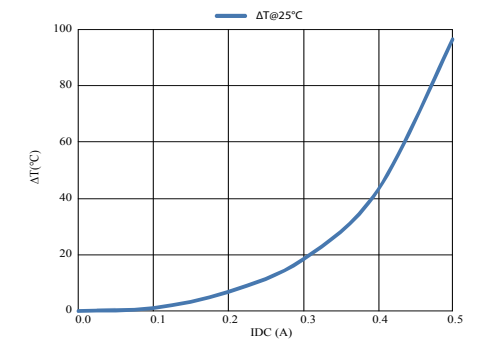
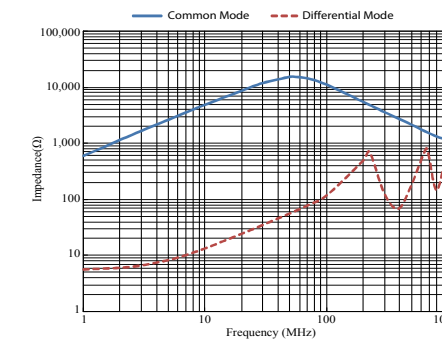
- High common mode impedance (Up to 3000Ω)
- Large DC current rating (Up to 10A)
- Low profile
- Compliant with AEC_Q200, suitable for automotive applications

COMMON MODE CHOKE – ASF / MSF SERIES

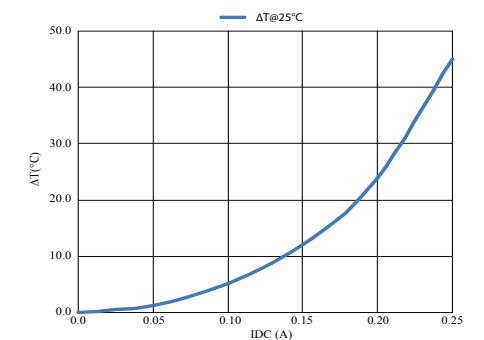
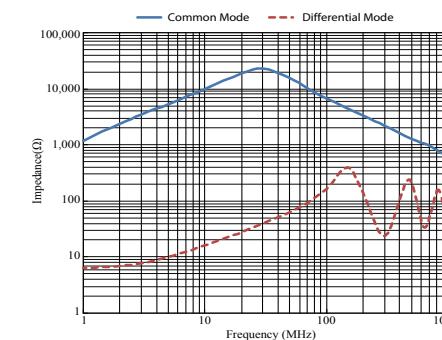
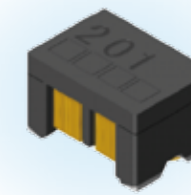
About ASF/MSF Series

ABC's CMC (Common Mode Choke) ASF & MSF series provide different dimensions (4532 / 3425 / 3225) and they can be used in various automotive applications such as CAN-FD, CAN-BUS and Ethernet while meet industry standard. The products are manufactured with automatic production and excellent winding technology, which keep stability and maintain coil flatness during production.

MSF3425510YDB

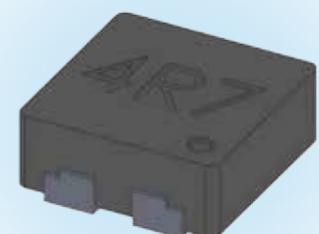


ASF4532201YEB



SHIELDED MOLDED POWER INDUCTOR

MCH1040 SERIES



Coupled Inductor

High Current

AEC_Q200 Grade 1

Type	MCH1040
Dimension	10.15 x 10.8 x 4.0
Inductance (μH)	2.2 ~ 33
Rated Current (A)	2.5 ~ 15
Operating Temperature (including self-temperature rise)	-40°C ~ +125°C
AEC_Q200 Grade	Grade 1

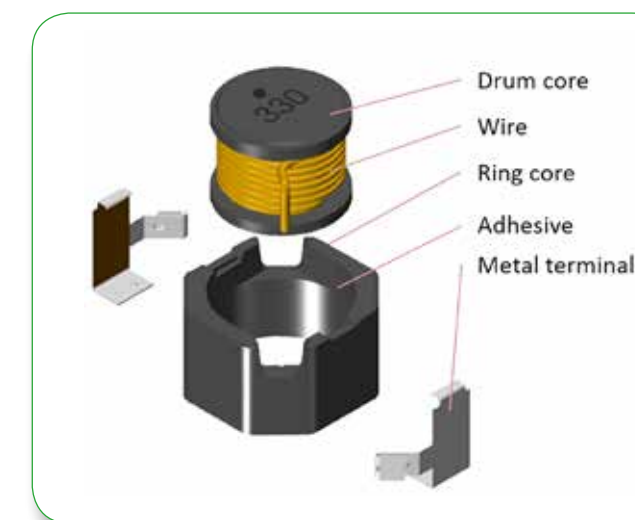
Application

- DC-DC converters
- Power supplies
- Lighting
- Filtering circuits

About MCH Series

ABC MCH1040 series shielded molded power inductors are suitable for high temperature environments (up to 125°C). Powder molded construction also allows the coil to be more tightly covered, reducing the generation of gaps and brings advantages of low resistance, high current and high saturation. MCH1040 series are also coupled inductor which is a type of inductor that features two coils in such way that the magnetic flux generated by one coil induces a voltage in the other coil(s). This magnetic coupling allows for energy transfer between the coils, and it is a key component in various electronic circuits, particularly in transformers, filters, and switched-mode power supplies.

SHIELDED POWER INDUCTOR – MCU SERIES



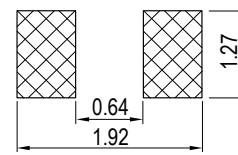
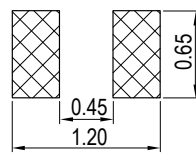
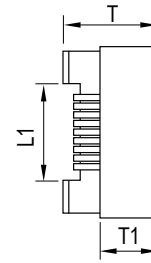
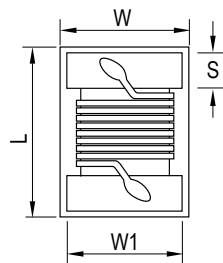
About MCU Series

ABC has launched new dimensions for high-inductance shielded power inductor MCU series. Compared with the general traditional chip inductor our MCU series possesses strengthened structure with high reliability, wire soldering spot are exposed to prevent short issue which escalate automatic production stability, and ferrite core provides high inductance value up to 680uH, making it suitable for DC-DC converters, switching power supplies and filtering applications in automotive power conversion and related modules.

MCU Series	Dimension	Inductance	Rated Current	AEC_Q200 Grade 0
MCU1277	12.5 x 12.8 x 7.7	22 ~ 470 μH	5.8 A ~ 1.2 A	
NEW MCU1255	12.1 x 12.5 x 5.5	22 ~ 470 μH	1.0 A ~ 4.8 A	
NEW MCU1040	10 x 10.2 x 3.8	1.0 ~ 680 μH	12 A ~ 0.48 A	
NEW MCU1060	10 x 10.2 x 6.0	3.3 ~ 680 μH	8.4 A ~ 0.55 A	
NEW MCU6045	6.0 x 6.3 x 4.5	1.0 ~ 470 μH	6.7 A ~ 0.28 A	
NEW MCU7045	7.0 x 7.4 x 4.5	1.0 ~ 470 μH	8.5 A ~ 0.41 A	

0402 / 0603 CT-A1

RF Ceramic



SWI0402CT-A1

SWI0603CS-A1

(PCB Pattern)

Unit: mm

Series	L	W	T	S	L1	W1	T1
SWI0402CT-A1	1.00±0.10	0.55±0.10	0.50±0.10	0.20±0.10	0.60 ref.	0.48 ref.	0.25 ref.
SWI0603CS-A1	1.65±0.20	1.15±0.20	0.90±0.20	0.30±0.10	0.92 ref.	0.76 ref.	0.50 ref.

Features

- Wide range of inductance
- High Q
- High SRF
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- PEPS



0402 / 0603 CT-A1

SWI0402 CT Series

Part No.	Inductance ¹ (nH) KEY	Tolerance	Q ² min.	SRF ³ (GHz) min.	RDC ⁴ (Ω) max.	IDC ⁵ (mA) max.
SWI0402CT 1N0 □-A1	1.0 @ 250MHz	B, S	13 @ 250MHz	6000	0.045	1360
SWI0402CT 1N5 □-A1	1.5 @ 250MHz	B, S	16 @ 250MHz	6000	0.070	1040
SWI0402CT 1N8 □-A1	1.8 @ 250MHz	B, S	16 @ 250MHz	6000	0.070	1040
SWI0402CT 1N9 □-A1	1.9 @ 250MHz	B, S	16 @ 250MHz	6000	0.070	1040
SWI0402CT 2N0 □-A1	2.0 @ 250MHz	B, S	16 @ 250MHz	6000	0.070	1040
SWI0402CT 2N2 □-A1	2.2 @ 250MHz	B, S	18 @ 250MHz	6000	0.070	960
SWI0402CT 2N4 □-A1	2.4 @ 250MHz	B, S	16 @ 250MHz	6000	0.068	790
SWI0402CT 2N7 □-A1	2.7 @ 250MHz	B, S	16 @ 250MHz	6000	0.120	860
SWI0402CT 3N2 □-A1	3.2 @ 250MHz	B, S	20 @ 250MHz	6000	0.066	840
SWI0402CT 3N3 □-A1	3.3 @ 250MHz	B, J, K	20 @ 250MHz	6000	0.066	840
SWI0402CT 3N6 □-A1	3.6 @ 250MHz	B, J, K	20 @ 250MHz	6000	0.066	840
SWI0402CT 3N9 □-A1	3.9 @ 250MHz	B, J, K	20 @ 250MHz	5800	0.066	840
SWI0402CT 4N3 □-A1	4.3 @ 250MHz	B, J, K	18 @ 250MHz	6000	0.091	700
SWI0402CT 4N7 □-A1	4.7 @ 250MHz	B, J, K	15 @ 250MHz	4775	0.130	640
SWI0402CT 5N1 □-A1	5.1 @ 250MHz	B, J, K	23 @ 250MHz	5800	0.083	800
SWI0402CT 5N6 □-A1	5.6 @ 250MHz	B, J, K	23 @ 250MHz	5800	0.083	760
SWI0402CT 6N2 □-A1	6.2 @ 250MHz	B, J, K	23 @ 250MHz	5800	0.083	760
SWI0402CT 6N8 □-A1	6.8 @ 250MHz	B, J, K	20 @ 250MHz	4800	0.083	680
SWI0402CT 7N5 □-A1	7.5 @ 250MHz	B, J, K	25 @ 250MHz	5800	0.104	680
SWI0402CT 8N2 □-A1	8.2 @ 250MHz	B, J, K	25 @ 250MHz	4400	0.104	680
SWI0402CT 8N7 □-A1	8.7 @ 250MHz	B, J, K	18 @ 250MHz	4100	0.200	480
SWI0402CT 9N0 □-A1	9.0 @ 250MHz	B, J, K	25 @ 250MHz	4160	0.104	680
SWI0402CT 9N5 □-A1	9.5 @ 250MHz	B, J, K	18 @ 250MHz	4000	0.200	680
SWI0402CT 10N □-A1	10 @ 250MHz	G, J, K	23 @ 250MHz	3900	0.195	480
SWI0402CT 11N □-A1	11 @ 250MHz	G, J, K	26 @ 250MHz	3680	0.120	640
SWI0402CT 12N □-A1	12 @ 250MHz	G, J, K	26 @ 250MHz	3600	0.120	640
SWI0402CT 13N □-A1	13 @ 250MHz	G, J, K	24 @ 250MHz	3450	0.210	560
SWI0402CT 15N □-A1	15 @ 250MHz	G, J, K	26 @ 250MHz	3280	0.172	560
SWI0402CT 16N □-A1	16 @ 250MHz	G, J, K	24 @ 250MHz	3100	0.220	560
SWI0402CT 18N □-A1	18 @ 250MHz	G, J, K	25 @ 250MHz	3100	0.230	520
SWI0402CT 19N □-A1	19 @ 250MHz	G, J, K	26 @ 250MHz	3040	0.202	480
SWI0402CT 20N □-A1	20 @ 250MHz	G, J, K	25 @ 250MHz	3000	0.250	420
SWI0402CT 22N □-A1	22 @ 250MHz	G, J, K	25 @ 250MHz	2800	0.300	400
SWI0402CT 23N □-A1	23 @ 250MHz	G, J, K	26 @ 250MHz	2720	0.214	400
SWI0402CT 24N □-A1	24 @ 250MHz	G, J, K	25 @ 250MHz	2700	0.300	400
SWI0402CT 27N □-A1	27 @ 250MHz	G, J, K	26 @ 250MHz	2480	0.298	400
SWI0402CT 30N □-A1	30 @ 250MHz	G, J, K	25 @ 250MHz	2350	0.300	400
SWI0402CT 33N □-A1	33 @ 250MHz	G, J, K	24 @ 250MHz	2350	0.350	400
SWI0402CT 36N □-A1	36 @ 250MHz	G, J, K	26 @ 250MHz	2320	0.403	320
SWI0402CT 39N □-A1	39 @ 250MHz	G, J, K	25 @ 250MHz	2100	0.550	320
SWI0402CT 40N □-A1	40 @ 250MHz	G, J, K	26 @ 250MHz	2240	0.438	320
SWI0402CT 43N □-A1	43 @ 250MHz	G, J, K	25 @ 250MHz	2030	0.810	240
SWI0402CT 47N □-A1	47 @ 200MHz	G, J, K	26 @ 200MHz	2100	0.830	210
SWI0402CT 51N □-A1	51 @ 200MHz	J, K	25 @ 200MHz	1750	0.820	210
SWI0402CT 56N □-A1	56 @ 200MHz	J, K	22 @ 200MHz	1760	0.970	200
SWI0402CT 62N □-A1	62 @ 200MHz	J, K	22 @ 200MHz	1670	1.050	190
SWI0402CT 68N □-A1	68 @ 200MHz	J, K	22 @ 200MHz	1620	1.120	180
SWI0402CT 72N □-A1	72 @ 150MHz	G, J, K	20 @ 150MHz	1600	1.130	175
SWI0402CT 82N □-A1	82 @ 150MHz	J, K	20 @ 150MHz	1500	1.250	150
SWI0402CT 91N □-A1	91 @ 150MHz	J, K	20 @ 150MHz	1350	2.300	120
SWI0402CT R10 □-A1	100 @ 150MHz	J, K	20 @ 150MHz	1300	2.520	120
SWI0402CT R12 □-A1	120 @ 150MHz	J, K	20 @ 150MHz	1100	2.660	110

0402 / 0603 CT-A1

SWI0603 CS Series

Part No.	Inductance ¹ (nH) KEY	Tolerance	Q ² min.	SRF ³ (GHz) min.	RDC ⁴ (Ω) max.	IDC ⁵ (mA) max.
SWI0603CS 1N6 □-A1	1.6 @ 250MHz	B, S, K	18 @ 250MHz	12500	0.030	700
SWI0603CS 1N8 □-A1	1.8 @ 250MHz	B, S, K	16 @ 250MHz	>8500	0.045	700
SWI0603CS 2N2 □-A1	2.2 @ 250MHz	B, S, K	13 @ 250MHz	>8500	0.110	700
SWI0603CS 3N3 □-A1	3.3 @ 250MHz	J, K	35 @ 250MHz	6000	0.045	700
SWI0603CS 3N6 □-A1	3.6 @ 250MHz	J, K	22 @ 250MHz	6000	0.070	700
SWI0603CS 3N9 □-A1	3.9 @ 250MHz	J, K	22 @ 250MHz	6900	0.070	700
SWI0603CS 4N3 □-A1	4.3 @ 250MHz	J, K	22 @ 250MHz	5900	0.070	700
SWI0603CS 4N7 □-A1	4.7 @ 250MHz	J, K	20 @ 250MHz	5800	0.080	700
SWI0603CS 5N1 □-A1	5.1 @ 250MHz	J, K	18 @ 250MHz	5700	0.150	700
SWI0603CS 5N6 □-A1	5.6 @ 250MHz	J, K	16 @ 250MHz	5500	0.190	700
SWI0603CS 6N2 □-A1	6.2 @ 250MHz	J, K	25 @ 250MHz	5800	0.100	700
SWI0603CS 6N8 □-A1	6.8 @ 250MHz	G, J, K	27 @ 250MHz	5800	0.100	700
SWI0603CS 7N5 □-A1	7.5 @ 250MHz	G, J, K	28 @ 250MHz	4800	0.100	700
SWI0603CS 8N2 □-A1	8.2 @ 250MHz	G, J, K	28 @ 250MHz	4700	0.100	700
SWI0603CS 8N7 □-A1	8.7 @ 250MHz	G, J, K	28 @ 250MHz	4600	0.100	700
SWI0603CS 9N5 □-A1	9.5 @ 250MHz	G, J, K	28 @ 250MHz	5400	0.100	700
SWI0603CS 10N □-A1	10 @ 250MHz	G, J, K	31 @ 250MHz	4800	0.100	700
SWI0603CS 11N □-A1	11 @ 250MHz	G, J, K	30 @ 250MHz	4000	0.100	700
SWI0603CS 12N □-A1	12 @ 250MHz	G, J, K	32 @ 250MHz	4000	0.100	700
SWI0603CS 13N □-A1	13 @ 250MHz	G, J, K	38 @ 250MHz	3600	0.100	700
SWI0603CS 15N □-A1	15 @ 250MHz	G, J, K	35 @ 250MHz	4000	0.120	700
SWI0603CS 16N □-A1	16 @ 250MHz	G, J, K	35 @ 250MHz	3300	0.120	700
SWI0603CS 18N □-A1	18 @ 250MHz	G, J, K	35 @ 250MHz	3100	0.120	700
SWI0603CS 20N □-A1	20 @ 250MHz	G, J, K	35 @ 250MHz	3100	0.120	700
SWI0603CS 22N □-A1	22 @ 250MHz	G, J, K	35 @ 250MHz	3000	0.150	700
SWI0603CS 23N □-A1	23 @ 250MHz	G, J, K	38 @ 250MHz	2850	0.140	700
SWI0603CS 24N □-A1	24 @ 250MHz	G, J, K	35 @ 250MHz	2650	0.140	700
SWI0603CS 27N □-A1	27 @ 250MHz	G, J, K	35 @ 250MHz	2800	0.200	600
SWI0603CS 30N □-A1	30 @ 250MHz	G, J, K	37 @ 250MHz	2250	0.144	600
SWI0603CS 33N □-A1	33 @ 250MHz	G, J, K	36 @ 250MHz	2300	0.200	600
SWI0603CS 36N □-A1	36 @ 250MHz	G, J, K	36 @ 250MHz	2080	0.200	600
SWI0603CS 39N □-A1	39 @ 250MHz	G, J, K	36 @ 250MHz	2200	0.210	600
SWI0603CS 43N □-A1	43 @ 250MHz	G, J, K	38 @ 250MHz	2000	0.220	600
SWI0603CS 47N □-A1	47 @ 200MHz	G, J, K	35 @ 200MHz	2000	0.230	600
SWI0603CS 51N □-A1	51 @ 200MHz	G, J, K	32 @ 200MHz	1950	0.240	600
SWI0603CS 56N □-A1	56 @ 200MHz	G, J, K	32 @ 200MHz	1900	0.250	600
SWI0603CS 68N □-A1	68 @ 200MHz	G, J, K	32 @ 200MHz	1700	0.350	600
SWI0603CS 72N □-A1	72 @ 150MHz	G, J, K	34 @ 150MHz	1700	0.490	400
SWI0603CS 82N □-A1	82 @ 150MHz	G, J, K	30 @ 150MHz	1700	0.580	400
SWI0603CS 91N □-A1	91 @ 150MHz	G, J, K	34 @ 150MHz	1500	0.580	400
SWI0603CS R10 □-A1	100 @ 150MHz	G, J, K	34 @ 150MHz	1400	0.580	400
SWI0603CS R11 □-A1	110 @ 150MHz	G, J, K	33 @ 150MHz	1350	0.610	300
SWI0603CS R12 □-A1	120 @ 150MHz	G, J, K	30 @ 150MHz	1300	0.650	300
SWI0603CS R15 □-A1	150 @ 100MHz	G, J, K	30 @ 100MHz	990	0.850	280
SWI0603CS R18 □-A1	180 @ 100MHz	G, J, K	25 @ 100MHz	990	1.000	250
SWI0603CS R22 □-A1	220 @ 100MHz	G, J, K	25 @ 100MHz	900	1.800	250
SWI0603CS R27 □-A1	270 @ 100MHz	G, J, K	25 @ 100MHz	822	2.100	200
SWI0603CS R33 □-A1	330 @ 100MHz	J, K	25 @ 100MHz	500	2.300	150
SWI0603CS R39 □-A1	390 @ 100MHz	J, K	25 @ 100MHz	350	2.900	130
SWI0603CS R47 □-A1	470 @ 100MHz	J, K	22 @ 100MHz	350	3.780	120
SWI0603CS R56 □-A1	560 @ 100MHz	J, K	20 @ 100MHz	300	4.200	110
SWI0603CS R68 □-A1	680 @ 100MH	J, K	18 @ 100MHz	230	4.650	100

Tolerance: B=±0.20nH S=±0.30nH G=±2% J=±5% K=±10%

1. Inductance is measured in HP-4287A RF LCR meter with HP-16193 fixture.

2. Q is measured in HP-4287A RF LCR meter with HP-16193 fixture.

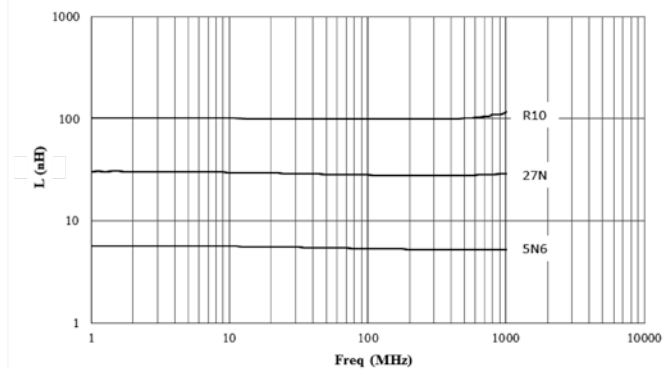
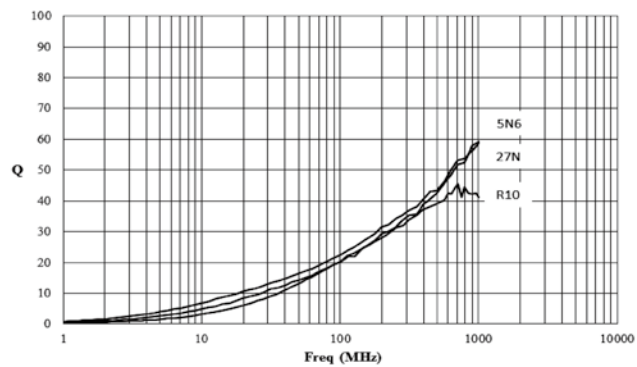
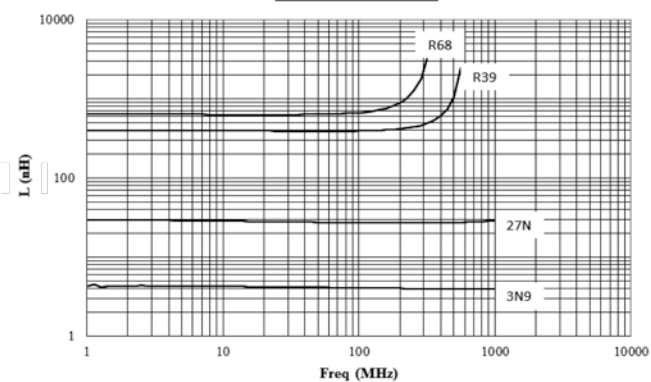
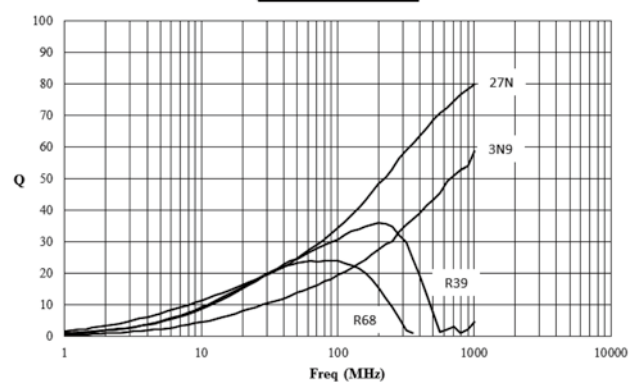
3. SRF is measured in ENA E5071B network analyzer or equivalent.

4. RDC is measured in HP-4338B milliohm meter or equivalent.

5. For 15 °C Rise.

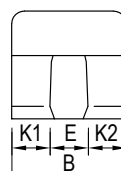
• All specifications are subject to change without notice.

0402 / 0603 CT-A1

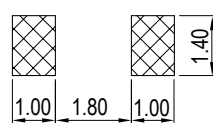
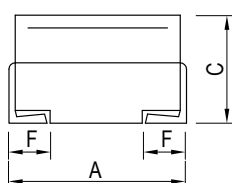
SWI0402 CT Series
L vs Freq Plot

Q vs Freq Plot

SWI0603 CS Series
L vs Freq Plot

Q vs Freq Plot


3225 / 4532

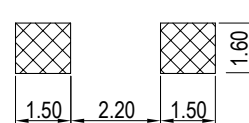
High Current



※ $\Delta K = |K1 - K2| = 0.25^{+0}_{-0}$ mm



ACC3225



ACC4532

(PCB Pattern)

Unit: mm

Series	A	A'	B	C	E	F
ACC3225	3.20±0.40	2.90±0.20	2.50±0.20	2.20±0.20	1.00±0.20	0.60 ^{+0.30} _{-0.00}
ACC4532	4.50±0.30	4.20±0.20	3.20±0.20	3.20±0.20	1.20	1.00 ^{+0.30} _{-0.00}

Features

- Wide range of inductance
- High Q
- High Current handling
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +150°C (including self-temperature rise)



Application

- Telematics
- Infotainment

3225 / 4532

ACC3225 Series

DWG. No.	Inductance (μ H)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz) min.	RDC (Ω) max.	Isat (A) typ.	Irms (A) max.
ACC32251R0□2B-□□□	1.00	K	8	7.960	100	0.156	1.350	1.450
ACC32251R5□2B-□□□	1.50	K	8	7.960	80	0.195	1.100	1.350
ACC32252R2□2B-□□□	2.20	K	8	7.960	65	0.250	1.000	1.150
ACC32253R3□2B-□□□	3.30	K	8	7.960	55	0.320	0.750	0.950
ACC32254R7□2B-□□□	4.70	J, K	8	7.960	46	0.380	0.700	0.900
ACC32256R8□2B-□□□	6.80	J, K	8	7.960	35	0.580	0.500	0.700
ACC3225100□2B-□□□	10.00	J, K	15	2.520	28	0.890	0.450	0.600
ACC3225120□2B-□□□	12.00	J, K	15	2.520	26	1.100	0.400	0.500
ACC3225150□2B-□□□	15.00	J, K	15	2.520	25	1.450	0.350	0.450
ACC3225180□2B-□□□	18.00	J, K	15	2.520	23	1.800	0.320	0.420
ACC3225220□2B-□□□	22.00	J, K	15	2.520	20	2.000	0.300	0.370
ACC3225330□2B-□□□	33.00	J, K	15	2.520	15	2.800	0.250	0.300
ACC3225470□2B-□□□	47.00	J, K	20	2.520	11	4.800	0.205	0.270
ACC3225680□2B-□□□	68.00	J, K	20	2.520	10	6.900	0.170	0.220
ACC3225101□2B-□□□	100.00	J, K	20	0.796	8	9.000	0.150	0.180

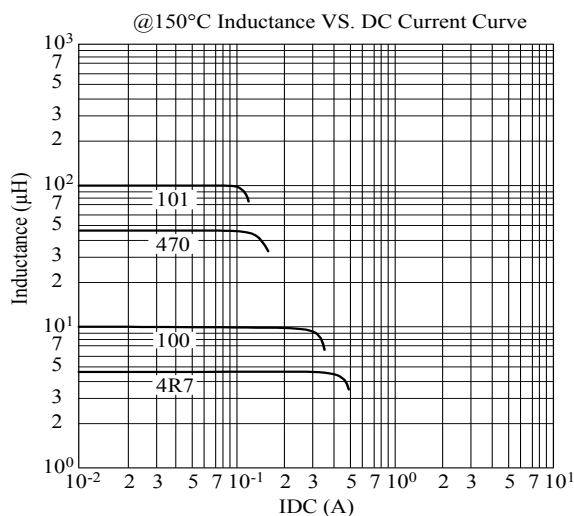
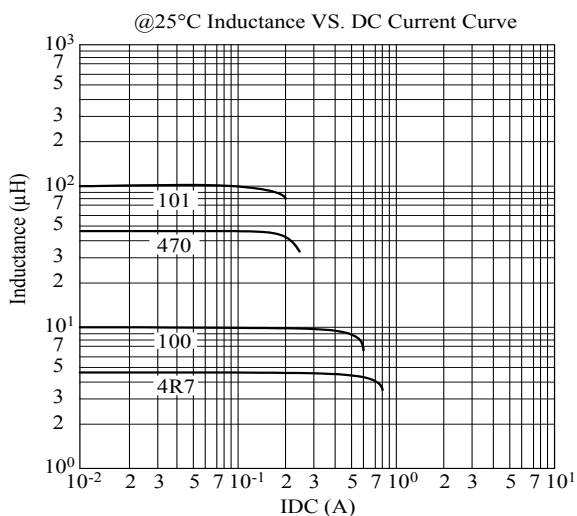
ACC4532 Series

DWG. No.	Inductance (μ H)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz) min.	RDC (Ω) max.	Isat (A) typ.	Irms (A) max.
ACC45321R0□2□-□□□	1.00	K	10	7.960	180.0	0.100	2.25	2.30
ACC45321R5□2□-□□□	1.50	K	10	7.960	110.0	0.120	1.85	1.90
ACC45322R2□2□-□□□	2.20	K	10	7.960	70.0	0.170	1.55	1.60
ACC45323R3□2□-□□□	3.30	K	10	7.960	35.0	0.210	1.25	1.50
ACC45324R7□2□-□□□	4.70	K	10	7.960	30.0	0.260	1.05	1.30
ACC45326R8□2□-□□□	6.80	K	10	7.960	25.0	0.320	0.90	1.20
ACC4532100□2□-□□□	10.00	J, K	20	2.520	20.0	0.480	0.70	1.00
ACC4532150□2□-□□□	15.00	J, K	20	2.520	14.0	0.610	0.60	0.75
ACC4532220□2□-□□□	22.00	J, K	20	2.520	12.0	0.900	0.50	0.62
ACC4532330□2□-□□□	33.00	J, K	20	2.520	10.0	1.150	0.40	0.55
ACC4532470□2□-□□□	47.00	J, K	20	2.520	8.0	1.650	0.30	0.45
ACC4532680□2□-□□□	68.00	J, K	20	2.520	7.0	2.500	0.26	0.35
ACC4532101□2□-□□□	100.00	J, K	30	0.796	5.5	4.000	0.22	0.28
ACC4532151□2□-□□□	150.00	J, K	30	0.796	4.5	6.000	0.19	0.22
ACC4532221□2□-□□□	220.00	J, K	30	0.796	3.7	7.700	0.17	0.20
ACC4532271□2□-□□□	270.00	J, K	30	0.796	3.4	10.200	0.15	0.18
ACC4532331□2□-□□□	330.00	J, K	30	0.796	3.1	11.000	0.14	0.17
ACC4532471□2□-□□□	470.00	J, K	30	0.796	2.7	16.000	0.12	0.14
ACC4532561□2□-□□□	560.00	J, K	30	0.796	2.5	21.000	0.11	0.13
ACC4532681□2□-□□□	680.00	J, K	30	0.796	2.2	24.000	0.10	0.12
ACC4532102□2□-□□□	1000.00	J, K	20	0.252	2.0	40.000	0.08	0.09

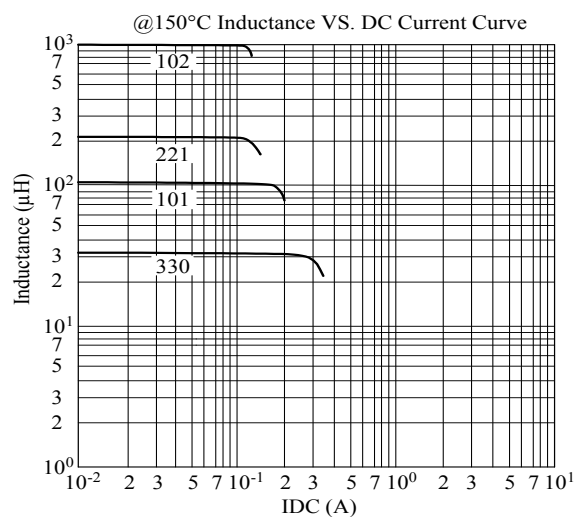
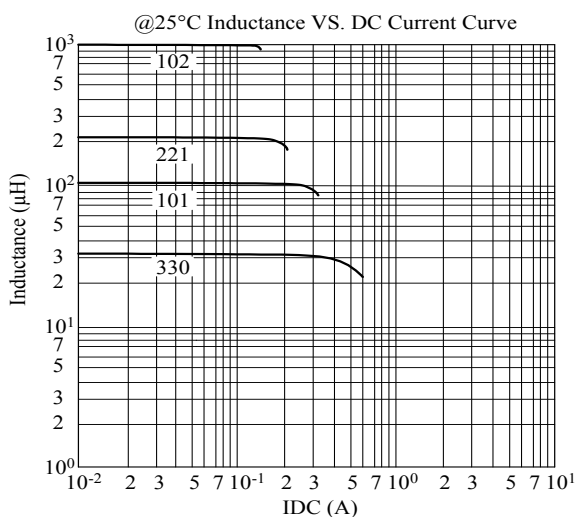
1. Electrical specifications at 25°C
2. Isat base on $\Delta L/L0A=10\%$ typ.
3. Irms base on temp. rise 40°C max.
4. Tolerance: J=±5% K=±10%

3225 / 4532

ACC3225 Series

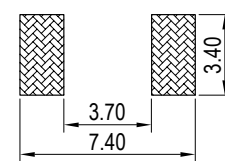
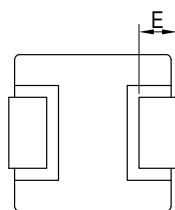
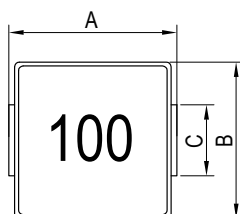


ACC4532 Series

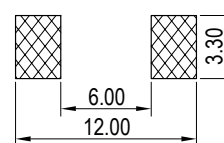


0630-T / 0640-T / 1040-T

Molded - High Current



MHE0630-T / MHE0640-T



MHE1040-T

(PCB Pattern)

Unit: mm

Series	A	B	C	D	E
MHE0630-T	7.10±0.30	6.60±0.30	3.00±0.30	3.00 max.	1.60±0.50
MHE0640-T	7.10±0.30	6.60±0.30	3.00±0.30	4.00 max.	1.60±0.50
MHE1040-T	11.50 max.	10.00±0.30	2.80±0.50	4.00 max.	2.00±0.50

Features

- Large current handling capability
- Lower RDC
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +155°C (including self-temperature rise)

Application

- LED Lighting
- Engine Control Module
- ADAS
- BCM
- Other power suppliers



0630-T / 0640-T / 1040-T
MHE0630-T Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MHE0630R33MTB-□□□	0.33 $\pm$ 20%	3.0	3.5	30.0	21.0
MHE0630R47MTB-□□□	0.47 $\pm$ 20%	3.5	4.1	25.0	18.0
MHE0630R68MTB-□□□	0.68 $\pm$ 20%	4.8	5.3	22.0	16.0
MHE0630R82MTB-□□□	0.82 $\pm$ 20%	5.0	5.5	18.0	15.0
MHE06301R0MTB-□□□	1.00 $\pm$ 20%	6.7	7.4	16.0	13.0
MHE06301R5MTB-□□□	1.50 $\pm$ 20%	10.5	12.0	13.0	11.0
MHE06301R8MTB-□□□	1.80 $\pm$ 20%	12.5	14.0	12.0	10.0
MHE06302R2MTB-□□□	2.20 $\pm$ 20%	13.5	15.0	12.0	9.0
MHE06303R3MTB-□□□	3.30 $\pm$ 20%	18.0	22.0	9.5	9.0
MHE06304R7MTB-□□□	4.70 $\pm$ 20%	28.0	33.0	7.5	7.0
MHE06305R6MTB-□□□	5.60 $\pm$ 20%	39.0	42.0	7.0	5.5
MHE06306R8MTB-□□□	6.80 $\pm$ 20%	43.0	50.0	6.0	5.0
MHE0630100MTB-□□□	10.0 $\pm$ 20%	62.0	68.0	5.5	4.5
MHE0630150MTB-□□□	15.0 $\pm$ 20%	110.0	125.0	3.5	3.5
MHE0630220MTB-□□□	22.0 $\pm$ 20%	140.0	160.0	3.0	3.0
MHE0630330MTB-□□□	33.0 $\pm$ 20%	170.0	185.0	2.5	2.5

MHE0640-T Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MHE06401R0MTB-□□□	1.0 $\pm$ 20%	6.0	6.5	14.0	12.0
MHE06401R5MTB-□□□	1.5 $\pm$ 20%	6.2	7.0	12.0	10.0
MHE06402R2MTB-□□□	2.2 $\pm$ 20%	9.0	10.0	11.0	9.0
MHE06403R3MTB-□□□	3.3 $\pm$ 20%	17.0	20.0	10.0	7.0
MHE06404R7MTB-□□□	4.7 $\pm$ 20%	26.0	30.0	9.0	6.5
MHE06405R6MTB-□□□	5.6 $\pm$ 20%	28.5	33.0	8.0	6.3
MHE06406R8MTB-□□□	6.8 $\pm$ 20%	42.0	45.0	7.0	5.5
MHE06408R2MTB-□□□	8.2 $\pm$ 20%	45.0	50.0	6.0	5.0
MHE0640100MTB-□□□	10.0 $\pm$ 20%	49.0	55.0	5.0	4.5
MHE0640220MTB-□□□	22.0 $\pm$ 20%	120.0	130.0	3.5	3.0
MHE0640330MTB-□□□	33.0 $\pm$ 20%	180.0	200.0	2.7	3.2
MHE0640470MTB-□□□	47.0 $\pm$ 20%	220.0	240.0	2.3	3.0
MHE0640680MTB-□□□	68.0 $\pm$ 20%	260.0	290.0	2.0	1.5

MHE1040-T Series

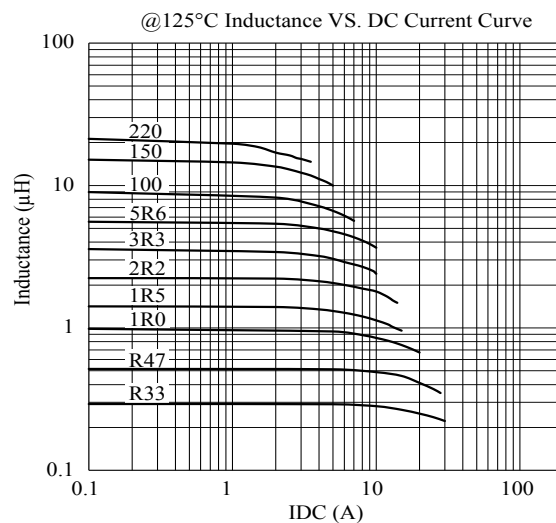
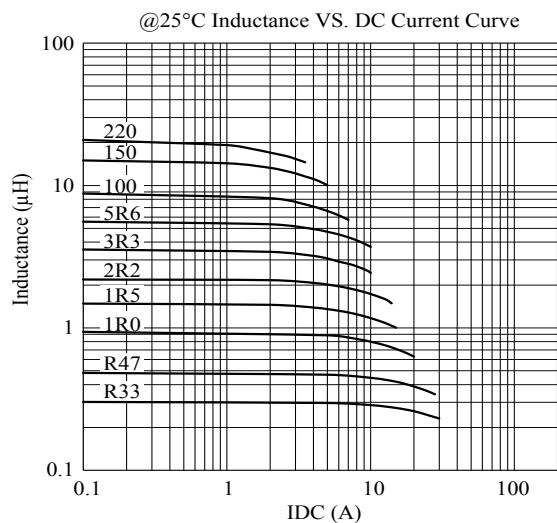
DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MHE10402R2MT□-□□□	2.20 $\pm$ 20%	6.50	7.00	18.00	15.00
MHE10403R3MT□-□□□	3.30 $\pm$ 20%	9.50	10.50	15.00	12.00
MHE10404R7MT□-□□□	4.70 $\pm$ 20%	12.50	14.00	13.00	11.00
MHE10405R6MT□-□□□	5.60 $\pm$ 20%	15.80	17.80	12.00	10.00
MHE10406R8MT□-□□□	6.80 $\pm$ 20%	19.00	21.00	10.00	9.00
MHE1040100MT□-□□□	10.0 $\pm$ 20%	29.80	32.80	8.50	7.50
MHE1040150MT□-□□□	15.0 $\pm$ 20%	38.00	43.00	6.50	6.50
MHE1040220MT□-□□□	22.0 $\pm$ 20%	54.50	60.00	5.00	6.00
MHE1040330MT□-□□□	33.0 $\pm$ 20%	77.50	85.00	4.50	5.00
MHE1040470MT□-□□□	47.0 $\pm$ 20%	120.00	130.00	3.00	4.50
MHE1040560MT□-□□□	56.0 $\pm$ 20%	140.00	155.00	2.80	4.00
MHE1040680MT□-□□□	68.0 $\pm$ 20%	155.00	170.00	2.50	3.50
MHE1040820MT□-□□□	82.0 $\pm$ 20%	180.00	200.00	2.20	3.00
MHE1040101MT□-□□□	100.0 $\pm$ 20%	280.00	300.00	2.00	2.50

1. Electrical specifications at 25°C
2. Inductance Test Condition: 500kHz / 0.25V
3. Isat base on $\Delta L/L0A=30\%$ typ.

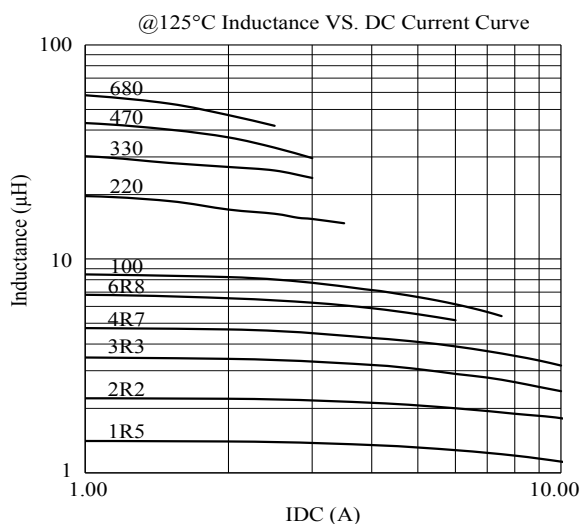
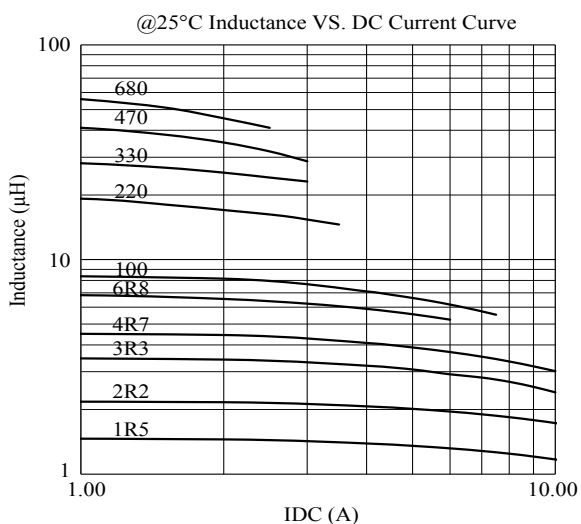
4. Irms base on Temp. rise 40°C typ.
5. Rated Operating Voltage (across inductor): 50V

0630-T / 0640-T / 1040-T

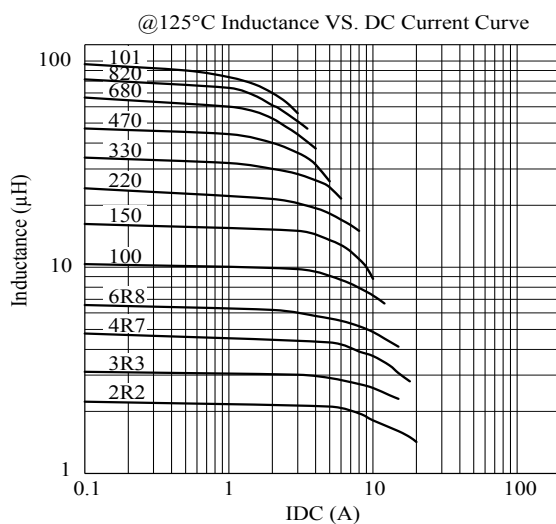
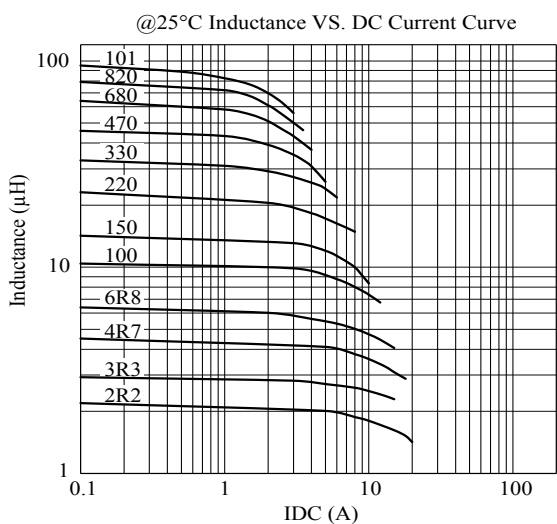
MHE0630-T Series



MHE0640-T Series

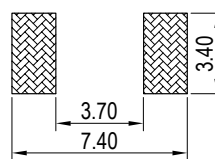
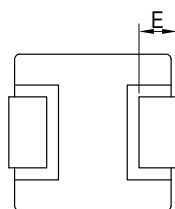
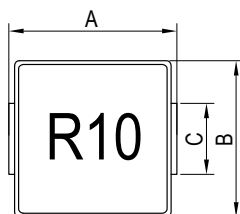


MHE1040-T Series

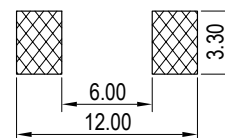


0630-Q / 1040-Q

Molded – High Saturation Current



MHE0630-Q



MHE1040-Q

(PCB Pattern)

Unit: mm

Series	A	B	C	D	E
MHE0630-Q	7.10±0.30	6.60±0.30	3.00±0.30	3.00 max.	1.60±0.50
MHE1040-Q	11.50 max.	10.00±0.30	2.80±0.50	4.00 max.	2.00±0.50

Features

- Large current handling capability
- Lower RDC
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +155°C (including self-temperature rise)

Application

- LED Lighting
- Engine Control Module
- ADAS
- BCM
- Other power suppliers



0630-Q / 1040-Q

MHE0630-Q Series

DWG. No.	Inductance (μ H)	Q ref.	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
				typ.	max.		
MHE0630R10MQB-□□□	0.10 $\pm$ 20%	14	200	1.5	1.7	70.0	34.0
MHE0630R22MQB-□□□	0.22 $\pm$ 20%	12	145	2.5	2.8	50.0	25.5
MHE0630R33MQB-□□□	0.33 $\pm$ 20%	12	140	3.5	3.9	35.0	21.5
MHE0630R47MQB-□□□	0.47 $\pm$ 20%	10	80	4.0	4.2	30.0	21.0
MHE0630R56MQB-□□□	0.56 $\pm$ 20%	12	78	5.0	5.5	28.0	18.0
MHE0630R68MQB-□□□	0.68 $\pm$ 20%	8	75	5.1	5.5	28.0	17.5
MHE0630R82MQB-□□□	0.82 $\pm$ 20%	8	68	6.7	7.8	26.0	14.0
MHE0630R100MQB-□□□	1.00 $\pm$ 20%	30	58	9.0	10.0	25.0	12.0
MHE0630R15MQB-□□□	1.50 $\pm$ 20%	30	45	14.0	15.0	18.0	10.0
MHE0630R22MQB-□□□	2.20 $\pm$ 20%	30	30	18.0	20.0	14.0	10.0
MHE0630R33MQB-□□□	3.30 $\pm$ 20%	24	25	28.0	30.0	13.5	8.0
MHE0630R47MQB-□□□	4.70 $\pm$ 20%	21	22	37.0	40.0	11.0	6.0
MHE0630R56MQB-□□□	5.60 $\pm$ 20%	21	20	52.0	60.0	10.5	5.8
MHE0630R68MQB-□□□	6.80 $\pm$ 20%	26	17	54.0	60.0	9.0	5.5
MHE0630R82MQB-□□□	8.20 $\pm$ 20%	26	12	64.0	68.0	7.5	5.0
MHE0630R100MQB-□□□	10.0 $\pm$ 20%	26	10	102.0	105.0	7.0	4.0

1. Electrical specifications at 25°C
2. Inductance Test Condition: 500kHz / 0.25V
3. Q Test Freq.: R10~R82--25.2MHz, 1R0~5R6--7.96MHz, 6R8~100--2.52MHz
4. Isat base on $\Delta L/L0A=30\%$ typ.
5. Irms base on Temp. rise 40°C typ.
6. Rated Operating Voltage (across inductor): 50V

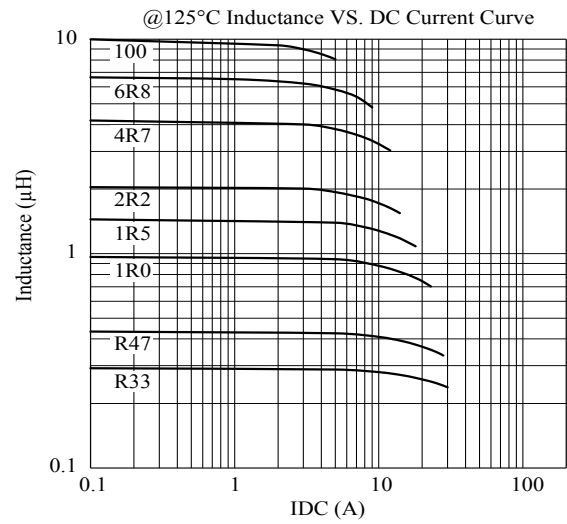
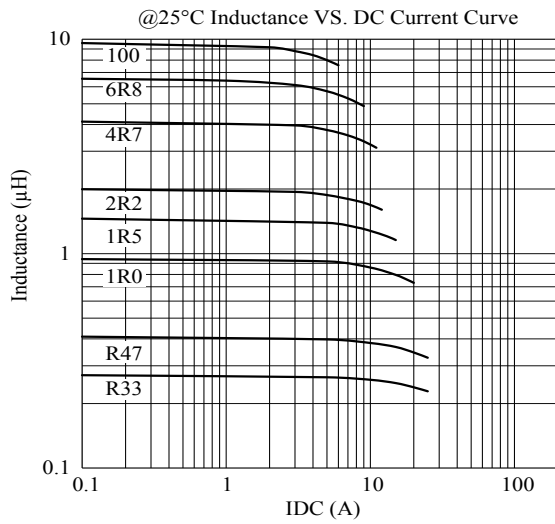
MHE1040-Q Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MHE1040R68MQ□-□□□	0.68 $\pm$ 20%	1.90	2.40	35.00	23.00
MHE1040R100MQ□-□□□	1.00 $\pm$ 20%	3.00	3.30	31.00	18.00
MHE1040R15MQ□-□□□	1.50 $\pm$ 20%	3.80	4.20	27.00	16.00
MHE1040R22MQ□-□□□	2.20 $\pm$ 20%	6.70	7.00	24.00	12.00
MHE1040R33MQ□-□□□	3.30 $\pm$ 20%	10.80	11.80	19.00	10.00
MHE1040R47MQ□-□□□	4.70 $\pm$ 20%	15.00	16.50	17.00	9.50
MHE1040R56MQ□-□□□	5.60 $\pm$ 20%	17.60	19.30	16.00	8.50
MHE1040R68MQ□-□□□	6.80 $\pm$ 20%	21.20	23.30	13.00	8.00
MHE1040R82MQ□-□□□	8.20 $\pm$ 20%	26.00	29.00	10.00	7.00
MHE1040R100MQ□-□□□	10.0 $\pm$ 20%	33.20	36.50	9.00	6.80
MHE1040R150MQ□-□□□	15.0 $\pm$ 20%	40.00	45.00	7.00	6.25
MHE1040R220MQ□-□□□	22.0 $\pm$ 20%	60.00	66.00	5.50	5.00
MHE1040R330MQ□-□□□	33.0 $\pm$ 20%	85.00	92.00	5.00	4.40
MHE1040R470MQ□-□□□	47.0 $\pm$ 20%	130.00	145.00	3.50	4.00

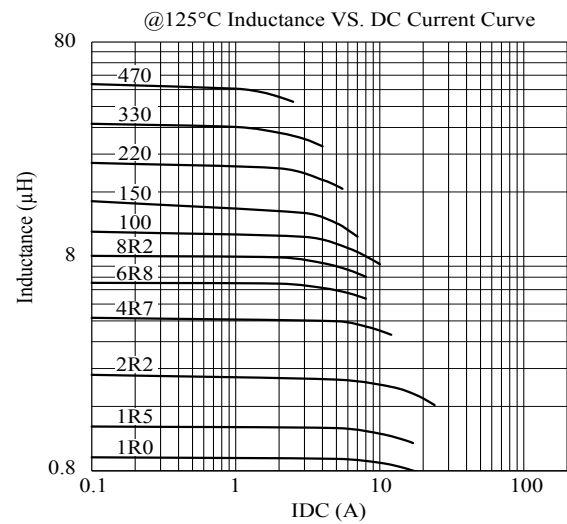
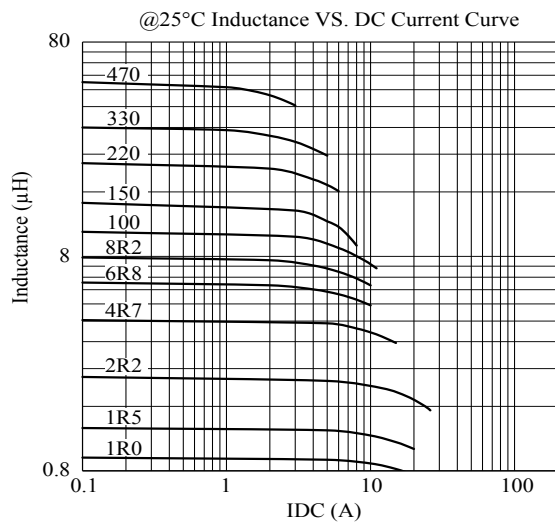
1. Electrical specifications at 25°C
2. Inductance Test Condition: 500kHz / 0.25V
3. Isat base on $\Delta L/L0A=30\%$ typ.
4. Irms base on Temp. rise 40°C typ.
5. Rated Operating Voltage (across inductor): 50V

0630-Q / 1040-Q

MHE0630-Q Series

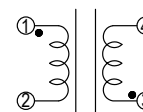
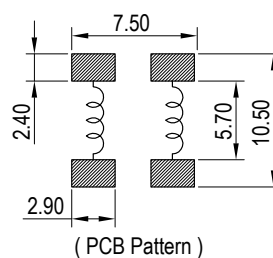
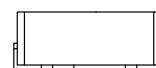
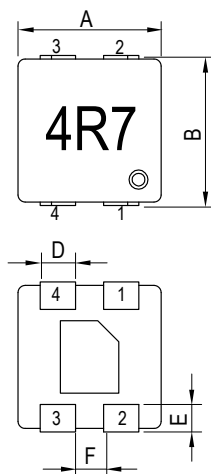
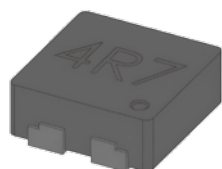


MHE1040-Q Series



1040-S

Molded - Coupled



Unit: mm

Series	A	B	C	D	E	F
MCH1040-S	10.15±0.30	10.80±0.40	4.00 max.	2.50±0.20	1.70±0.50	2.00±0.30

Features

- Coupled construction
- Large current handling capability
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- DC-DC converters
- Engine Control Module
- Noise suppression for motors

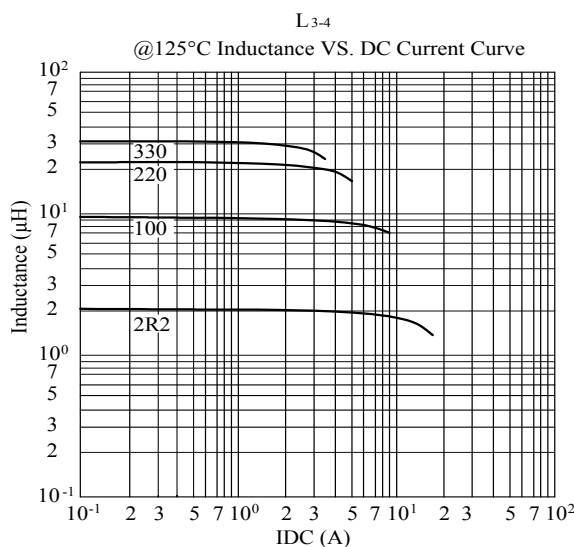
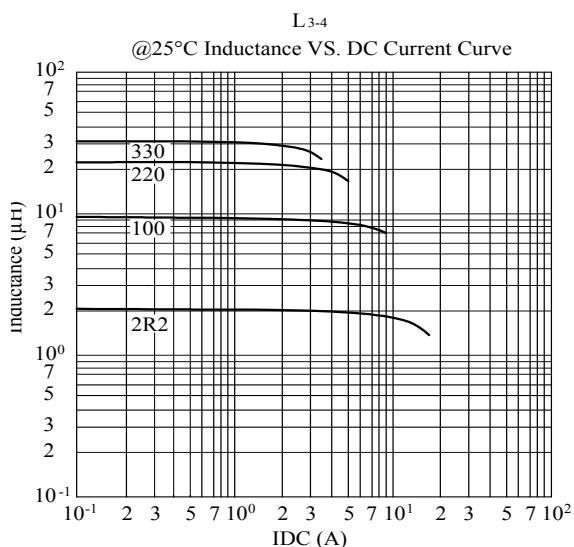
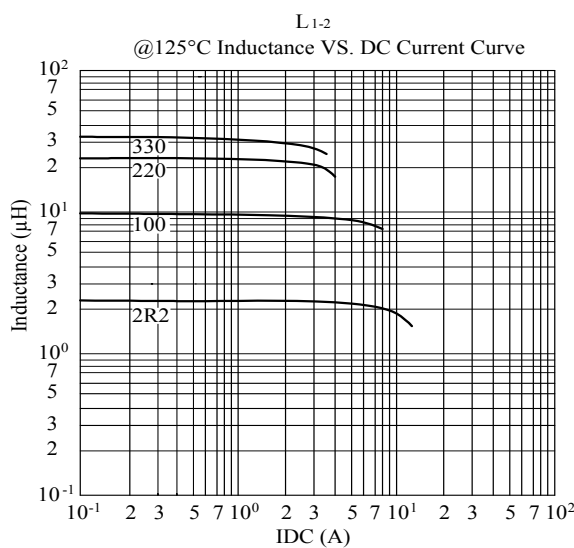
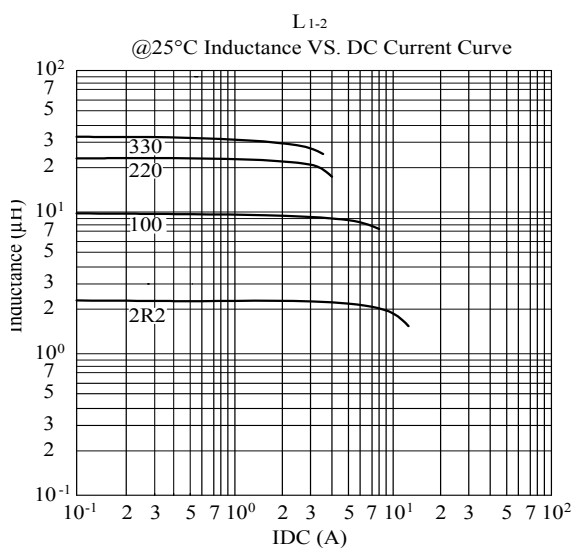


MCH1040-S Series

DWG. No.	Inductance L1, L2 (μ H)	L ₁₋₂ RDC (m Ω)		L ₃₋₄ RDC (m Ω)		L ₁₋₂ Isat (A)	L ₃₋₄ Isat (A)	L ₁₋₂ Irms (A)	L ₃₋₄ Irms (A)
		typ.	max.	typ.	max.	typ.	typ.	typ.	typ.
MCH10402R2MSB-□□□	2.20 $\pm$ 20%	15.1	17.5	13.9	17.5	12.0	9.5	15.0	10.5
MCH10402R7MSB-□□□	2.70 $\pm$ 20%	16.7	21.7	20.4	26.2	12.0	9.0	15.0	8.5
MCH10404R7MSB-□□□	4.70 $\pm$ 20%	27.6	33.0	29.9	33.0	7.2	7.2	8.3	7.0
MCH1040100MSB-□□□	10.00 $\pm$ 20%	65.8	97.0	77.5	92.0	6.4	4.5	7.8	4.3
MCH1040150MSB-□□□	15.00 $\pm$ 20%	111.9	116.6	107.1	118.6	5.5	3.3	6.8	3.7
MCH1040220MSB-□□□	22.00 $\pm$ 20%	156.4	189.6	175.8	190.0	3.5	2.9	4.2	3.0
MCH1040330MSB-□□□	33.00 $\pm$ 20%	242.3	255.0	211.5	230.0	2.5	2.0	2.5	2.2

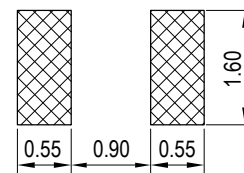
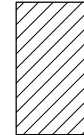
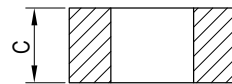
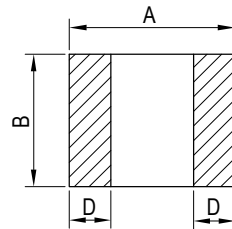
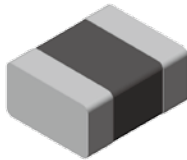
1. Electrical specifications at 25°C
2. Inductance Test Condition: 500kHz / 0.25V
3. Isat base on $\Delta L/L0A=30\%$ typ.
4. Irms base on Temp. rise 40°C typ.
5. Rated Voltage: 50V max.

MCH1040-S Series



2016-E

Mini High Current



(PCB Pattern)

Unit: mm

Series	A	B	C	D
ADP2016-E	2.00±0.20	1.60±0.20	1.00 max.	0.50±0.30

Features

- Alloy powder
- Miniature size for high current handling capability
- Low RDC
- Low core noise
- AEC-Q200 Grade 0
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- Car navigation system
- Dashcam

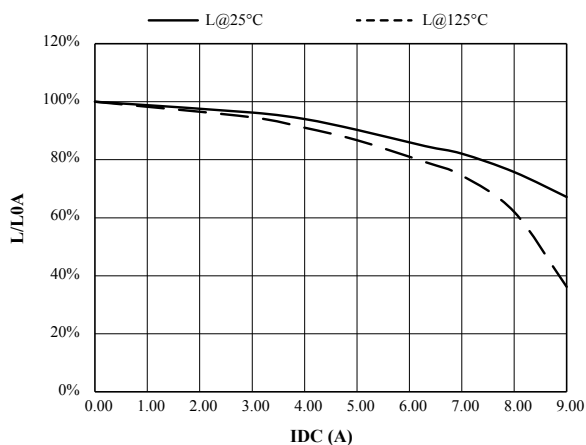


ADP2016-E Series

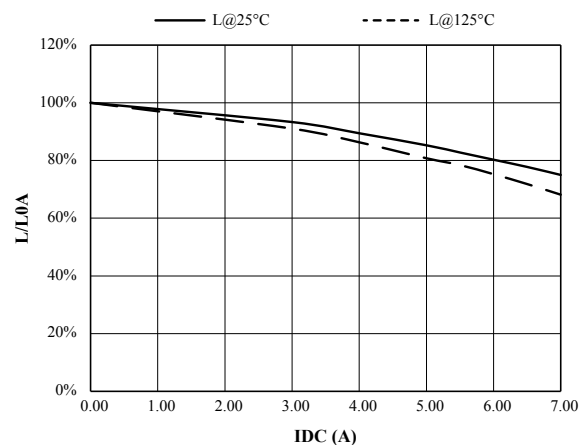
DWG. No.	Inductance (μ H)	RDC (m Ω) max.	Isat (A)		Isat (A)	
			max.	typ.	max.	typ.
ADP2016R24MEB-□□□	0.24 $\pm$ 20%	20	6.30	7.99	4.70	4.80
ADP2016R33MEB-□□□	0.33 $\pm$ 20%	26	5.50	6.74	4.00	5.50
ADP2016R47MEB-□□□	0.47 $\pm$ 20%	32	4.80	5.98	3.60	3.65
ADP2016R68MEB-□□□	0.68 $\pm$ 20%	43	4.30	4.92	3.10	3.50
ADP2016R10MEB-□□□	1.00 $\pm$ 20%	57	3.60	3.99	2.70	2.75
ADP2016R15MEB-□□□	1.50 $\pm$ 20%	91	2.90	3.44	2.10	2.30
ADP2016R22MEB-□□□	2.20 $\pm$ 20%	140	2.40	2.69	1.70	2.15
ADP2016R47MEB-□□□	4.70 $\pm$ 20%	288	1.60	1.94	1.10	1.13

1. Electrical specifications at 25°C
2. Inductance Test Condition.: 1MHz / 1V
3. Isat base on $\Delta L/L0A=30\%$.
4. Irms base on Temp. rise 40°C.

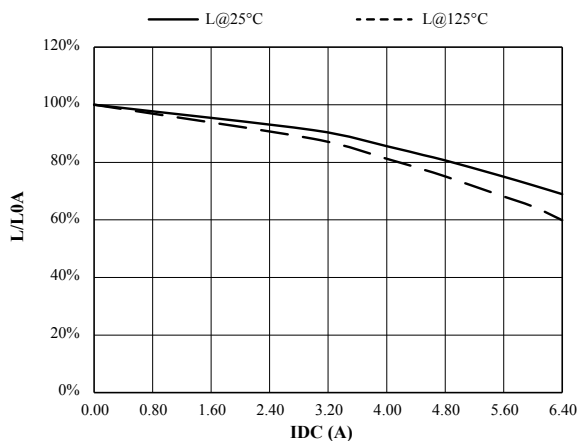
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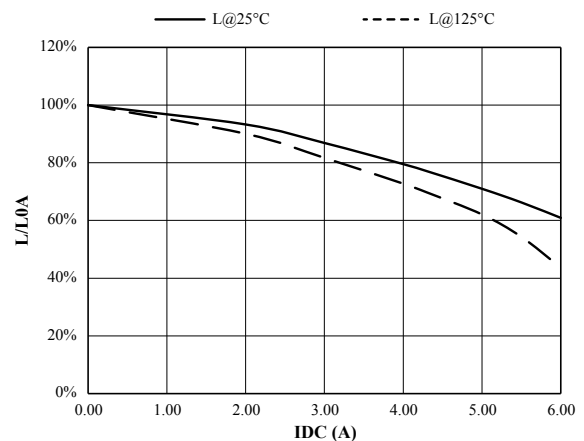
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ADP2016R47MEB

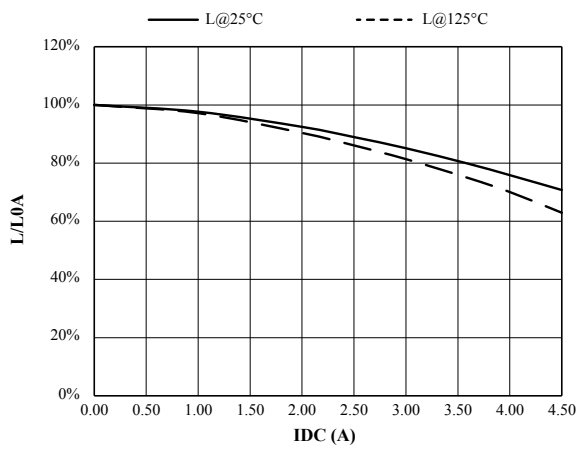


ADP2016R68MEB

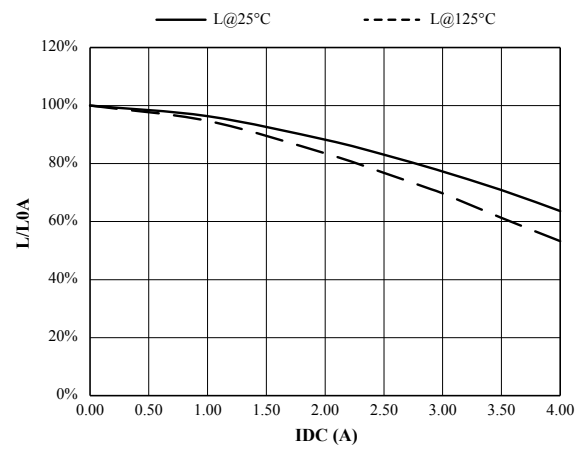


2016-E

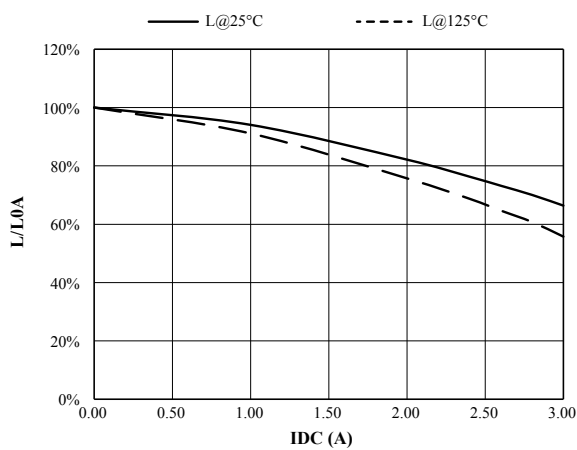
ADP20161R0MEB



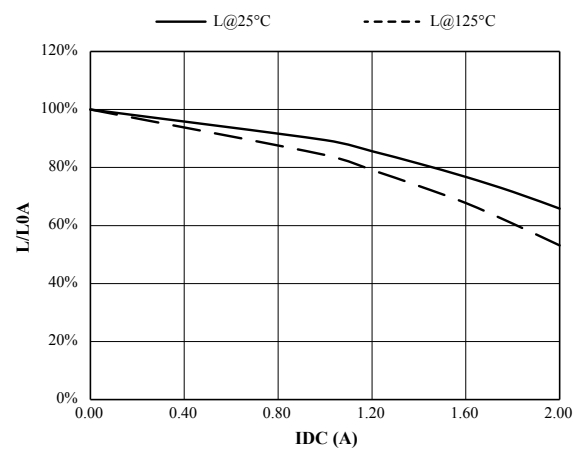
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ADP20162R2MEB

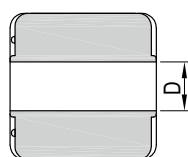
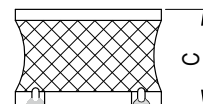
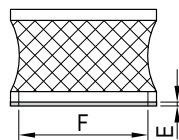
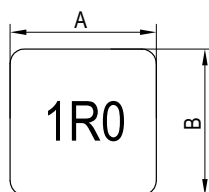


ADP20164R7MEB



3030 / 4020 / 4030 / 5030 / 5040 / 6045

Semi-Shielded



For PCB pattern information,
please see page 24

Unit: mm

Series	A	B	C	D	E	F
MSN3030	3.00±0.20	3.00±0.20	3.00 max.	1.00 typ.	0.12 min.	2.80±0.20
MSN4020	4.00±0.20	4.00±0.20	2.00 max.	1.00 typ.	-	-
MSN4030	4.00±0.20	4.00±0.20	3.00 max.	1.80 typ.	0.10 min.	3.50±0.20
MSN5030	5.00±0.2	5.00±0.2	3.00 max.	1.80 typ.	0.20 min.	4.00±0.20
MSN5040	5.00±0.20	5.00±0.20	4.00 max.	1.50 typ.	-	-
MSN6045	6.00±0.20	6.00±0.20	4.70 max.	2.40 typ.	0.30 min.	5.00±0.20

Features

- Magnetic resin coating onto coil
- Semi-shielded effect to reduce leakage field
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- Telematics
- Infotainment
- BCM



3030 / 4020 / 4030 / 5030 / 5040 / 6045

MSN3030 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		SRF (MHz) typ.	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
			L	Q				
MSN30301R0YSB-□□□	1.00 $\pm$ 30%	13	100k/0.1V	7.96M	122	55.0	5.00	2.60
MSN30302R2YSB-□□□	2.20 $\pm$ 30%	14	100k/0.1V	7.96M	66	85.0	3.50	2.10
MSN30304R7YSB-□□□	4.70 $\pm$ 30%	15	100k/0.1V	7.96M	37	200.0	2.40	1.40
MSN3030100MSB-□□□	10.00 $\pm$ 20%	20	100k/0.1V	2.52M	25	450.0	1.60	0.90
MSN3030220MSB-□□□	22.00 $\pm$ 20%	25	100k/0.1V	2.52M	16	1100.0	1.10	0.55
MSN3030470MSB-□□□	47.00 $\pm$ 20%	27	100k/0.1V	2.52M	10	2050.0	0.75	0.35
MSN3030101MSB-□□□	100.00 $\pm$ 20%	33	100k/0.1V	0.796M	7	5000.0	0.50	0.25

MSN4020 Series

DWG. No.	Inductance (μ H)	Test Freq. (Hz)	SRF (MHz) typ.	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
MSN4020R22YLB-□□□	0.22 $\pm$ 30%	1V/1M	166.0	11.0	21.20	10.50
MSN4020R47YLB-□□□	0.47 $\pm$ 30%	1V/1M	80.0	17.0	12.30	7.50
MSN4020R68YLB-□□□	0.68 $\pm$ 30%	1V/1M	63.0	21.0	10.80	6.50
MSN40201R0YLB-□□□	1.00 $\pm$ 30%	1V/1M	55.0	26.0	9.30	6.10
MSN40201R5MLB-□□□	1.50 $\pm$ 20%	1V/1M	43.0	37.0	7.80	5.70
MSN40202R2MLB-□□□	2.20 $\pm$ 20%	1V/1M	35.0	49.0	6.30	4.30
MSN40203R3MLB-□□□	3.30 $\pm$ 20%	1V/1M	28.0	72.0	5.40	3.80
MSN40204R7MLB-□□□	4.70 $\pm$ 20%	1V/1M	25.0	108.0	4.50	2.90
MSN40206R8MLB-□□□	6.80 $\pm$ 20%	1V/1M	20.0	154.0	3.70	2.40
MSN4020100MLB-□□□	10.00 $\pm$ 20%	1V/1M	16.0	216.0	2.50	2.20
MSN4020150MLB-□□□	15.00 $\pm$ 20%	1V/1M	12.0	370.0	2.20	1.60
MSN4020220MLB-□□□	22.00 $\pm$ 20%	1V/1M	7.0	425.0	2.00	1.40
MSN4020330MLB-□□□	33.00 $\pm$ 20%	1V/1M	6.0	720.0	1.70	1.15
MSN4020470MLB-□□□	47.00 $\pm$ 20%	1V/1M	5.0	990.0	1.40	0.95
MSN4020101MLB-□□□	100.00 $\pm$ 20%	1V/1M	3.0	2150.0	0.70	0.60

MSN4030 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		SRF (MHz) typ.	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
			L	Q				
MSN40301R0YSB-□□□	1.00 $\pm$ 30%	15	100k/0.1V	7.96M	100	20.0	7.80	5.50
MSN40302R2YSB-□□□	2.20 $\pm$ 30%	14	100k/0.1V	7.96M	47	30.0	4.90	4.30
MSN40303R3YSB-□□□	3.30 $\pm$ 30%	13	100k/0.1V	7.96M	39	50.0	4.00	3.40
MSN40304R7YSB-□□□	4.70 $\pm$ 30%	13	100k/0.1V	7.96M	31	60.0	3.50	3.10
MSN4030100MSB-□□□	10.00 $\pm$ 20%	17	100k/0.1V	2.52M	20	180.0	2.20	1.80
MSN4030220MSB-□□□	22.00 $\pm$ 20%	18	100k/0.1V	2.52M	13	330.0	1.50	1.20
MSN4030470MSB-□□□	47.00 $\pm$ 20%	19	100k/0.1V	2.52M	8	650.0	1.05	0.85
MSN4030101MSB-□□□	100.00 $\pm$ 20%	26	100k/0.1V	0.796M	7	1450.0	0.70	0.55

3030 / 4020 / 4030 / 5030 / 5040 / 6045

MSN5030 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		SRF (MHz) typ.	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
			L	Q				
MSN5030R47YSB-□□□	0.47 $\pm$ 30%	14.0	100k/0.1V	7.96M	171.0	12.0	10.00	7.00
MSN50301R0YSB-□□□	1.00 $\pm$ 30%	14.0	100k/0.1V	7.96M	124.0	18.0	7.20	5.00
MSN50301R5YSB-□□□	1.50 $\pm$ 30%	13.0	100k/0.1V	7.96M	67.0	26.0	6.40	4.20
MSN50302R2YSB-□□□	2.20 $\pm$ 30%	14.0	100k/0.1V	7.96M	57.0	33.0	4.90	3.70
MSN50303R3YSB-□□□	3.30 $\pm$ 30%	14.0	100k/0.1V	7.96M	50.0	45.0	4.50	3.50
MSN50304R7YSB-□□□	4.70 $\pm$ 30%	13.0	100k/0.1V	7.96M	39.0	53.0	3.50	2.70
MSN5030100MSB-□□□	10.00 $\pm$ 20%	18.0	100k/0.1V	2.52M	24.0	105.0	2.10	1.70
MSN5030150MSB-□□□	15.00 $\pm$ 20%	19.0	100k/0.1V	2.52M	20.0	190.0	1.80	1.50
MSN5030220MSB-□□□	22.00 $\pm$ 20%	14.0	100k/0.1V	2.52M	15.0	220.0	1.40	1.30
MSN5030330MSB-□□□	33.00 $\pm$ 20%	17.0	100k/0.1V	2.52M	14.0	410.0	1.10	1.00
MSN5030470MSB-□□□	47.00 $\pm$ 20%	16.0	100k/0.1V	2.52M	10.0	450.0	0.95	0.80
MSN5030560MSB-□□□	56.00 $\pm$ 20%	19.0	100k/0.1V	2.52M	9.0	700.0	0.90	0.70
MSN5030680MSB-□□□	68.00 $\pm$ 20%	20.0	100k/0.1V	2.52M	8.0	800.0	0.80	0.65
MSN5030101MSB-□□□	100.00 $\pm$ 20%	30.0	100k/0.1V	0.796M	7.0	1400.0	0.65	0.45

MSN5040 Series

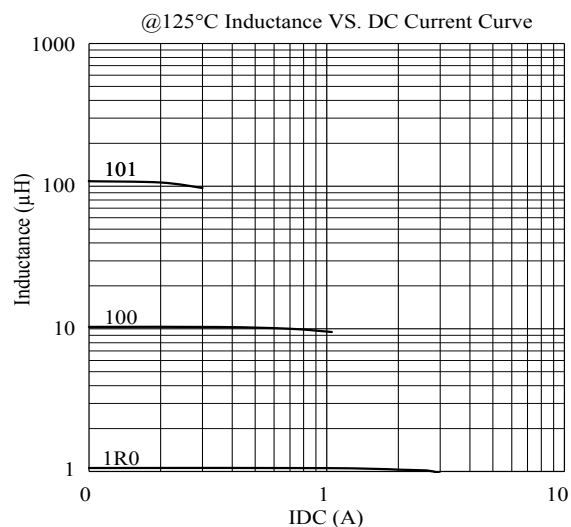
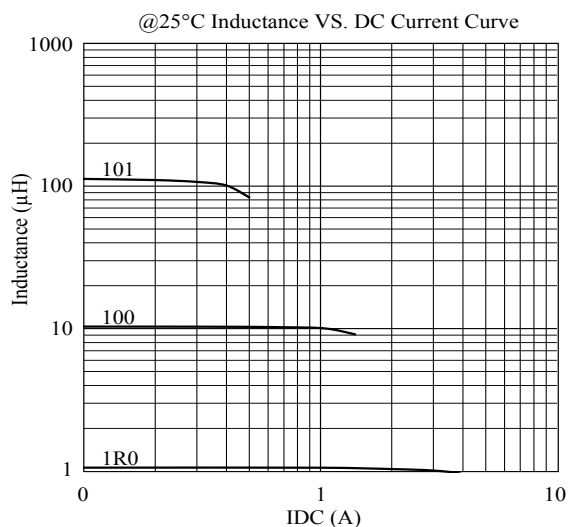
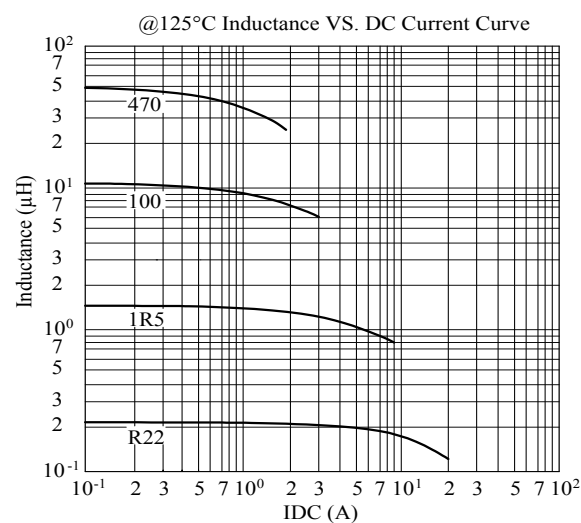
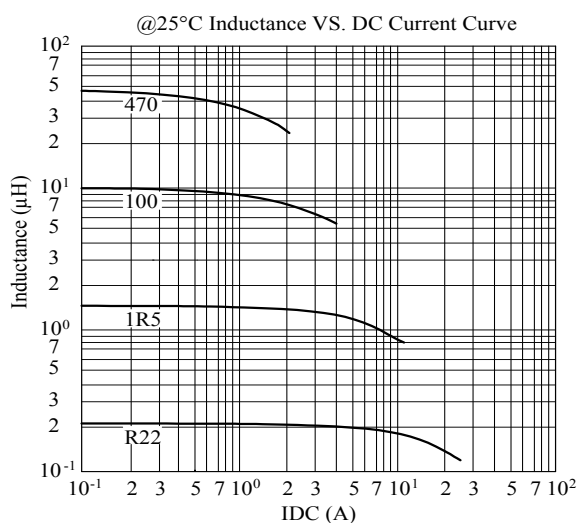
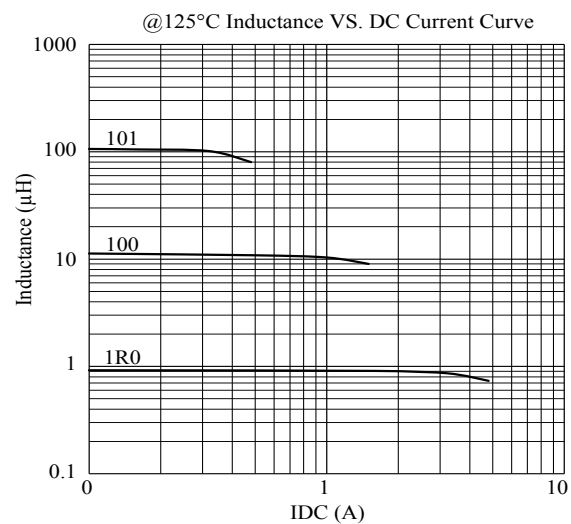
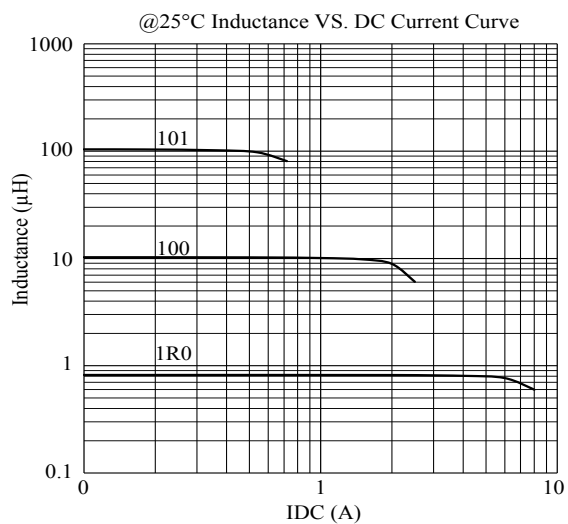
DWG. No.	Inductance (μ H)	Test Freq. (Hz)	SRF (MHz) typ.	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
MSN50401R5YSB-□□□	1.50 $\pm$ 30%	100k/1V	85.0	18.0	7.00	5.20
MSN50402R2YSB-□□□	2.20 $\pm$ 30%	100k/1V	55.0	20.0	5.00	4.50
MSN50403R3MSB-□□□	3.30 $\pm$ 20%	100k/1V	45.0	26.0	4.50	4.00
MSN50404R7MSB-□□□	4.70 $\pm$ 20%	100k/1V	40.0	35.0	3.80	3.50
MSN50406R8MSB-□□□	6.80 $\pm$ 20%	100k/1V	30.0	59.0	3.20	2.60
MSN50408R2MSB-□□□	8.20 $\pm$ 20%	100k/1V	25.0	65.0	2.80	2.40
MSN5040100MSB-□□□	10.00 $\pm$ 20%	100k/1V	22.0	67.0	2.60	2.30
MSN5040150MSB-□□□	15.00 $\pm$ 20%	100k/1V	20.0	96.0	2.20	2.00
MSN5040220MSB-□□□	22.00 $\pm$ 20%	100k/1V	17.0	151.0	1.80	1.60
MSN5040270MSB-□□□	27.00 $\pm$ 20%	100k/1V	15.0	198.0	1.70	1.40
MSN5040330MSB-□□□	33.00 $\pm$ 20%	100k/1V	13.0	216.0	1.40	1.30
MSN5040470MSB-□□□	47.00 $\pm$ 20%	100k/1V	10.0	320.0	1.30	1.10

MSN6045 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms (A) typ.
			L	Q	typ.	max.			
MSN6045R55YSB-□□□	0.55 $\pm$ 30%	19.0	100k/0.1V	7.96M	4.80	6.00	135	18.00	7.00
MSN60451R0YSB-□□□	1.00 $\pm$ 30%	17.0	100k/0.1V	7.96M	7.30	9.00	80	14.50	6.50
MSN60451R5YSB-□□□	1.50 $\pm$ 30%	17.0	100k/0.1V	7.96M	12.90	15.00	55	11.00	5.00
MSN60452R2YSB-□□□	2.20 $\pm$ 30%	17.0	100k/0.1V	7.96M	17.00	23.00	50	9.50	4.40
MSN60453R3YSB-□□□	3.30 $\pm$ 30%	20.0	100k/0.1V	7.96M	23.00	30.00	40	8.00	4.00
MSN60454R7YSB-□□□	4.70 $\pm$ 30%	20.0	100k/0.1V	7.96M	30.00	35.00	30	7.00	3.60
MSN6045100MSB-□□□	10.00 $\pm$ 20%	20.0	100k/0.1V	2.52M	41.00	50.00	20	4.00	2.60
MSN6045220MSB-□□□	22.00 $\pm$ 20%	24.0	100k/0.1V	2.52M	121.00	144.00	13	2.50	1.70
MSN6045330MSB-□□□	33.00 $\pm$ 20%	24.0	100k/0.1V	2.52M	170.00	211.00	10	2.20	1.50
MSN6045470MSB-□□□	47.00 $\pm$ 20%	23.0	100k/0.1V	2.52M	224.00	305.00	8	1.90	1.00
MSN6045680MSB-□□□	68.00 $\pm$ 20%	23.0	100k/0.1V	2.52M	316.00	400.00	7	1.60	0.90
MSN6045101MSB-□□□	100.00 $\pm$ 20%	23.0	100k/0.1V	0.796M	484.00	540.00	6	1.20	0.72

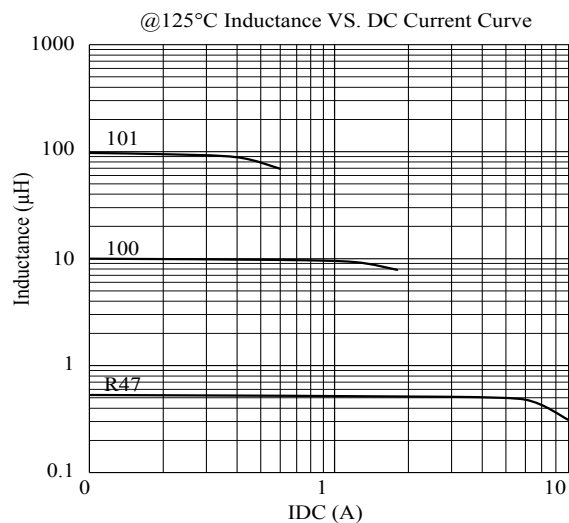
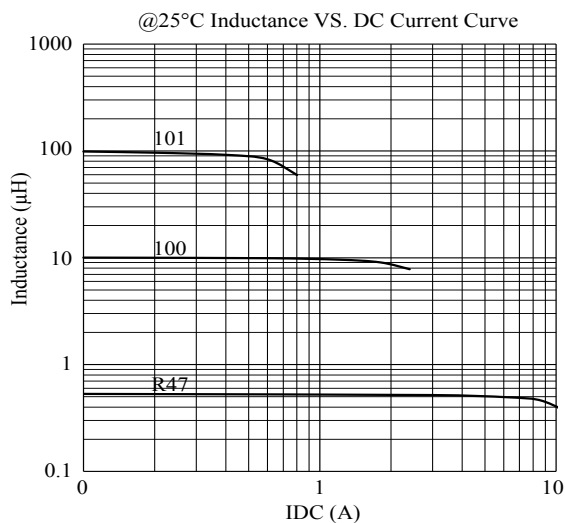
1. Electrical specifications at 25°C
2. Isat base on $\Delta L/L=30\%$ typ.
3. Irms base on Temp. rise 40°C typ.

3030 / 4020 / 4030 / 5030 / 5040 / 6045

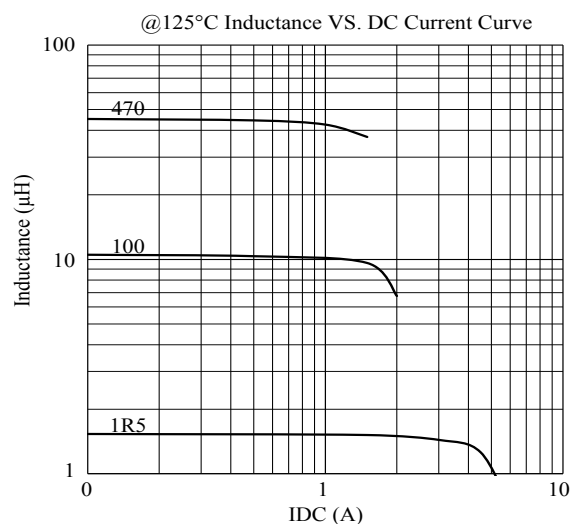
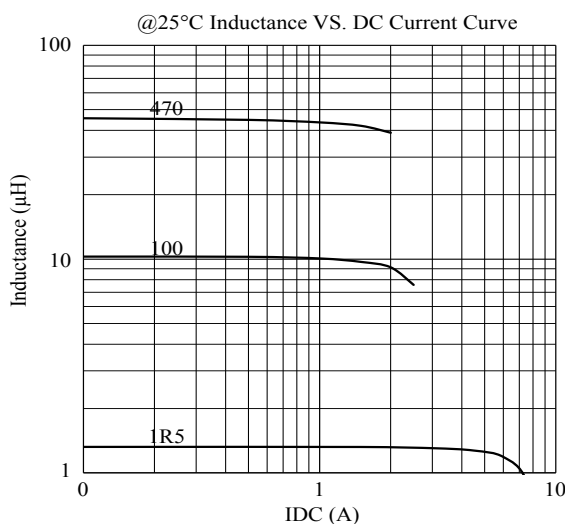
MSN3030 Series

MSN4020 Series

MSN4030 Series


3030 / 4020 / 4030 / 5030 / 5040 / 6045

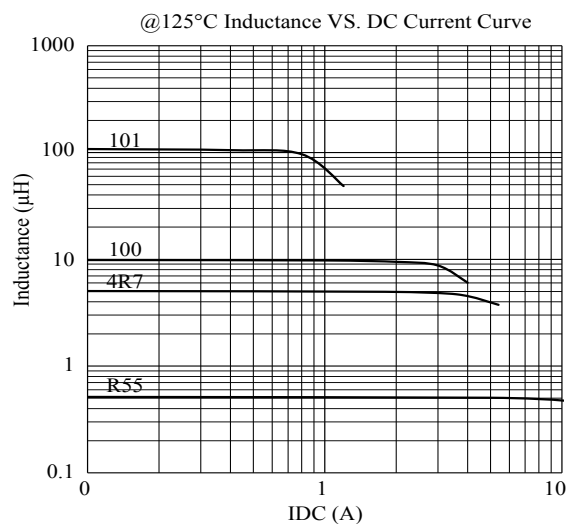
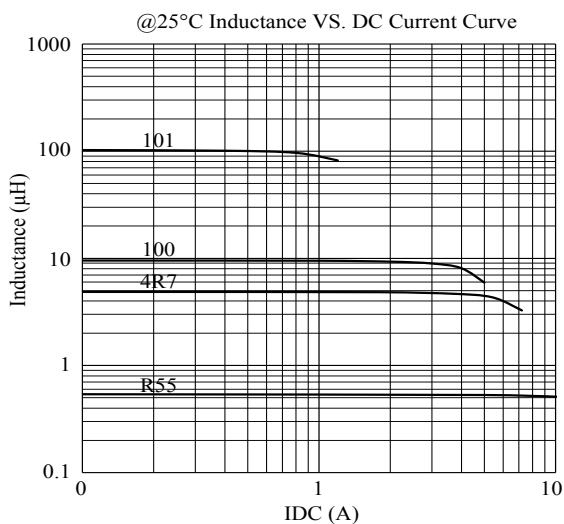
MSN5030 Series



MSN5040 Series

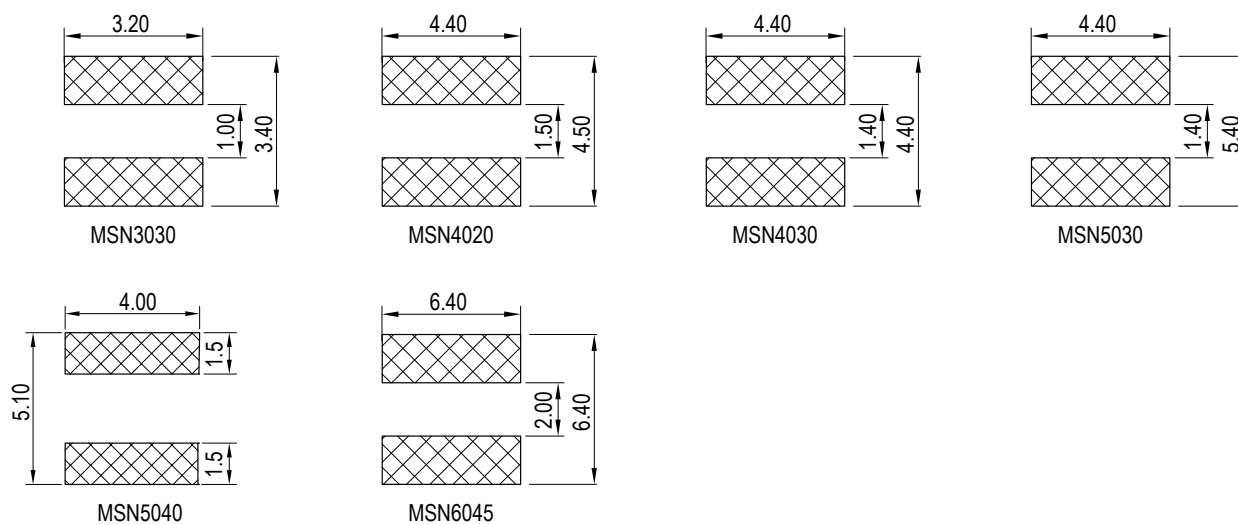


MSN6045 Series



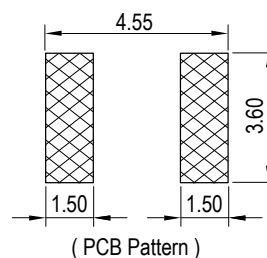
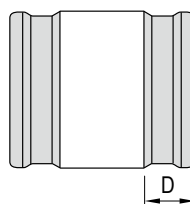
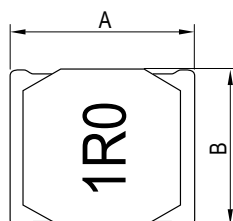
3030 / 4020 / 4030 / 5030 / 5040 / 6045

PCB Pattern



4018CT-A1

Semi-Shielded



Unit: mm

Series	A	B	C	D
TPI4018CT-A1	4.00±0.20	4.00±0.20	1.88 max. (R82~2R7) 1.80 max. (3R3~221)	1.30 typ.

Features

- Magnetic resin coating onto coil
- Semi-shielded effect to reduce leakage field
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

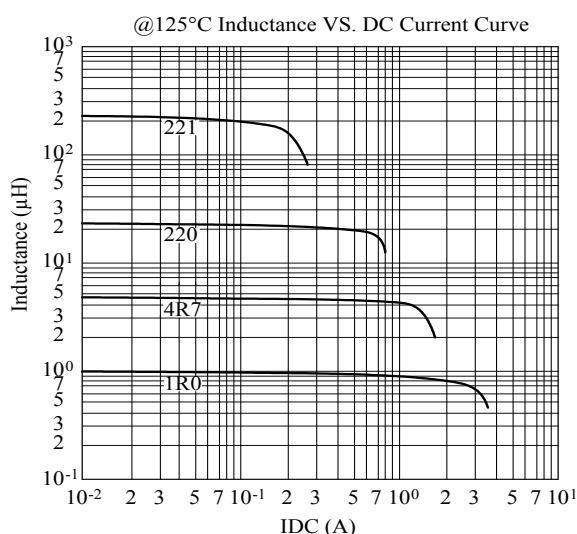
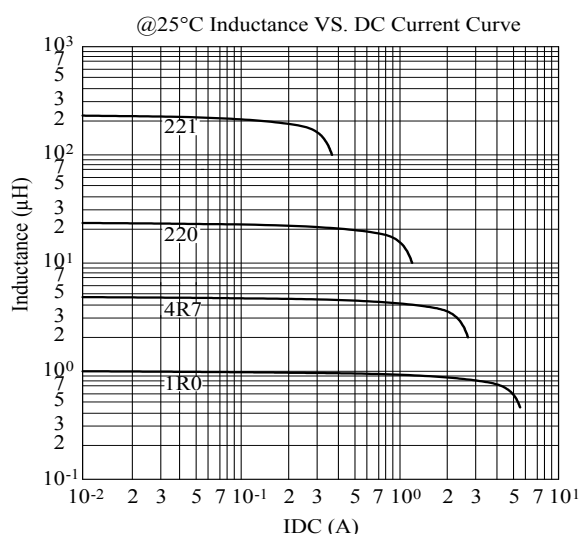
- Telematics
- Infotainment
- BCM



4018CT-A1
TPI4018CT-A1 Series

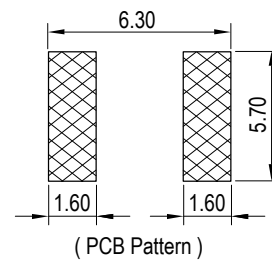
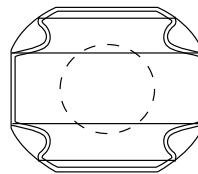
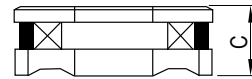
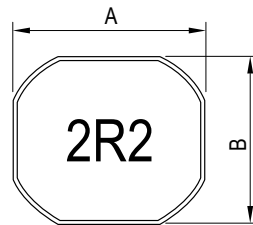
DWG. No.	Inductance (μH)	Test Freq.	Tolerance	SRF Min (MHz)	DC Resistance		Rated DC current (A)		Marking
					(mΩ)	ToL	Idc1	Idc2	
TPI4018CT R82□-A1	0.82	100kHz,1V	N	100	16	±30%	4.20	4.00	R82
TPI4018CT 1R0□-A1	1.00	100kHz,1V	N	90	19		4.70	3.70	1R0
TPI4018CT 1R2□-A1	1.20	100kHz,1V	N	80	21		4.00	3.50	1R2
TPI4018CT 1R5□-A1	1.50	100kHz,1V	N	70	32		3.50	3.10	1R5
TPI4018CT 2R2□-A1	2.20	100kHz,1V	M	60	37		3.00	2.90	2R2
TPI4018CT 2R7□-A1	2.70	100kHz,1V	M	52	43	±20%	2.40	2.30	2R7
TPI4018CT 3R3□-A1	3.30	100kHz,1V	M	45	55		2.30	2.20	3R3
TPI4018CT 4R7□-A1	4.70	100kHz,1V	M	35	70		2.00	1.90	4R7
TPI4018CT 6R8□-A1	6.80	100kHz,1V	M	30	98		1.60	1.50	6R8
TPI4018CT 100□-A1	10.00	100kHz,1V	M	25	150		1.40	1.30	100
TPI4018CT 150□-A1	15.00	100kHz,1V	M	18	220		1.10	1.00	150
TPI4018CT 220□-A1	22.00	100kHz,1V	M	15	290		0.95	0.90	220
TPI4018CT 330□-A1	33.00	100kHz,1V	M	12	460		0.75	0.70	330
TPI4018CT 470□-A1	47.00	100kHz,1V	M	10	650		0.62	0.60	470
TPI4018CT 680□-A1	68.00	100kHz,1V	M	8	940		0.50	0.50	680
TPI4018CT 101□-A1	100.00	100kHz,1V	M	6	1330		0.45	0.42	101
TPI4018CT 151□-A1	150.00	100kHz,1V	M	5	2000		0.35	0.32	151
TPI4018CT 221□-A1	220.00	100kHz,1V	M	3	2960		0.30	0.28	221

- Inductance is measured in HP-4285A Precision LCR Meter.
 - DCR is measured in DU-5011 milliohm meter (or equivalent).
 - Tolerance : M=20% , N=30% (Table shows stock tolerances in □).
 - Idc1 : Based on inductance change ($\Delta L/L_0$: $\leq 30\%$)
 - Idc2 : Based on temperature rise (ΔT : 40°C typ.)
 - Operating temperature range: -40°C ~ +125°C (Including self generated heat)
- Note: MSL = 1

TPI4018CT-A1 Series


6045CT-A1

Semi-Shielded



Unit: mm

Series	A	B	C
TPI6045CT-A1	6.00±0.20	6.00±0.20	4.50 max.

Features

- Magnetic resin coating onto coil
- Semi-shielded effect to reduce leakage field
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- Telematics
- Infotainment
- BCM

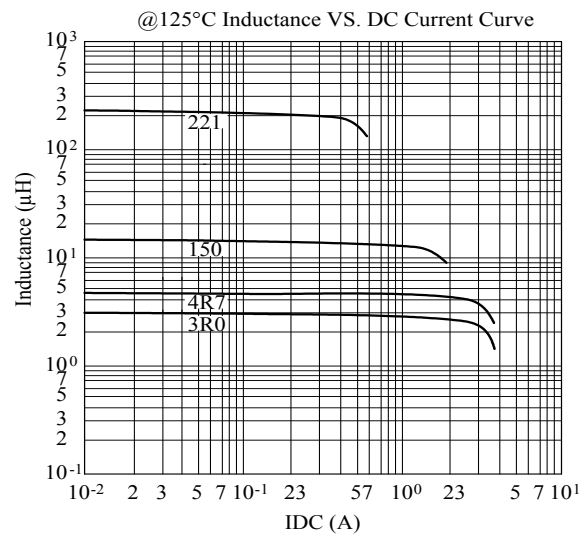
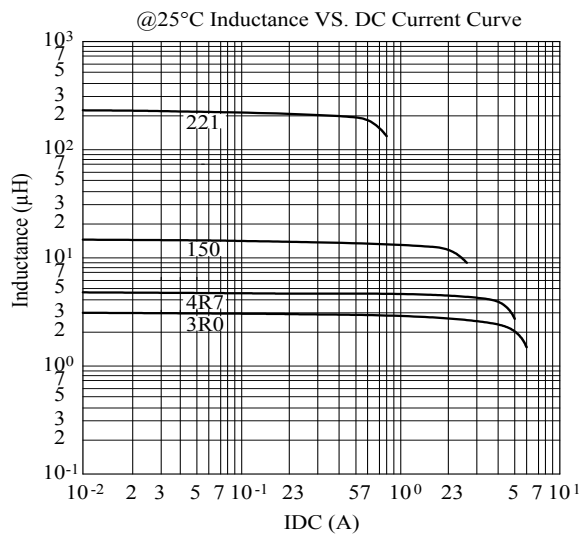


6045CT-A1
TPI6045CT-A1 Series

DWG. No.	Inductance (μ H)	Test Freq.	Tolerance	SRF Min (MHz)	DC Resistance		Rated DC current (A)		Marking
					(m Ω)	ToL.	Idc1	Idc2	
TPI6045CT 1R0□-A1	1.0	100kHz,1V	N	120	10	±30%	8.60	6.50	1R0
TPI6045CT 1R3□-A1	1.3	100kHz,1V	N	105	11		8.00	6.00	1R3
TPI6045CT 1R8□-A1	1.8	100kHz,1V	N	72	12		7.00	5.30	1R8
TPI6045CT 2R2□-A1	2.2	100kHz,1V	N	45	13		6.10	5.00	2R2
TPI6045CT 3R0□-A1	3.0	100kHz,1V	N	40	17		5.00	4.80	3R0
TPI6045CT 3R3□-A1	3.3	100kHz,1V	N	32	17		4.50	4.50	3R3
TPI6045CT 3R6□-A1	3.6	100kHz,1V	N	31	17		4.90	4.50	3R6
TPI6045CT 4R5□-A1	4.5	100kHz,1V	N	30	23		4.30	3.80	4R5
TPI6045CT 4R7□-A1	4.7	100kHz,1V	N	29	23		4.00	3.70	4R7
TPI6045CT 5R6□-A1	5.6	100kHz,1V	N	25	26		3.80	3.60	5R6
TPI6045CT 6R3□-A1	6.3	100kHz,1V	N	27	26		3.80	3.60	6R3
TPI6045CT 6R8□-A1	6.8	100kHz,1V	N	25	34		3.60	3.50	6R8
TPI6045CT 8R2□-A1	8.2	100kHz,1V	N	22	41	±20%	3.20	3.10	8R2
TPI6045CT 100□-A1	10.0	100kHz,1V	M	16	45		3.10	3.00	100
TPI6045CT 150□-A1	15.0	100kHz,1V	M	13	80		2.30	2.30	150
TPI6045CT 220□-A1	22.0	100kHz,1V	M	11	112		1.90	1.90	220
TPI6045CT 330□-A1	33.0	100kHz,1V	M	8	170		1.50	1.50	330
TPI6045CT 470□-A1	47.0	100kHz,1V	M	7	210		1.30	1.30	470
TPI6045CT 560□-A1	56.0	100kHz,1V	M	6	270		1.20	1.20	560
TPI6045CT 680□-A1	68.0	100kHz,1V	M	5	325		1.00	1.00	680
TPI6045CT 101□-A1	100.0	100kHz,1V	M	4	460		0.90	0.90	101
TPI6045CT 221□-A1	220.0	100kHz,1V	M	3	920		0.55	0.50	221
TPI6045CT 331□-A1	330.0	100kHz,1V	M	2	1450		0.45	0.40	331

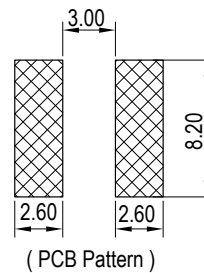
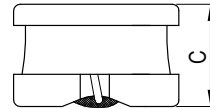
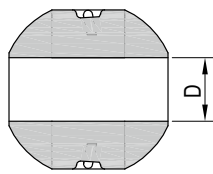
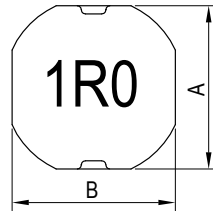
1. Inductance is measured in HP-4285A Precision LCR Meter.
 2. DCR is measured in DU-5011 milliohm meter (or equivalent).
 3. Tolerance : M=20% , N=30% (Table shows stock tolerances in □).
 4. Idc1 : Based on inductance change ($\Delta L/L_0$: ≤-30%)
 5. Idc2 : Based on temperature rise (ΔT : 40°C typ.)
 6. Operating Temperature: -40°C ~ +125°C
- Note: MSL = 1

TPI6045CT-A1 Series



8040

Semi-Shielded



Unit: mm

Series	A	B	C	D
MRN8040	8.15±0.30	7.90±0.30	4.20 max.	3.20 ref.

Features

- Magnetic resin coating onto coil
- Semi-shielded effect to reduce leakage field
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

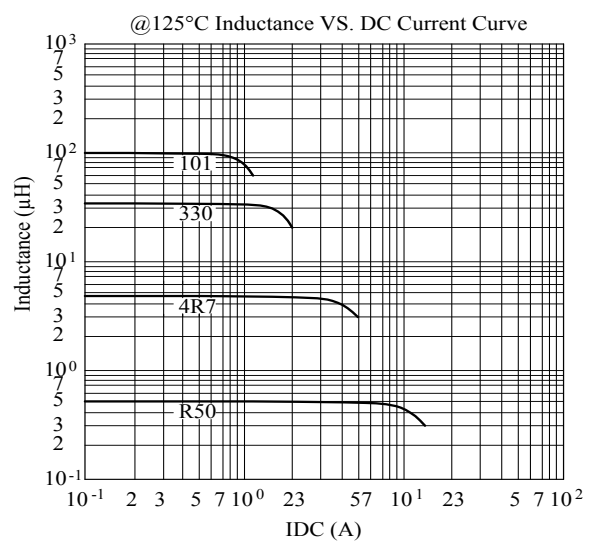
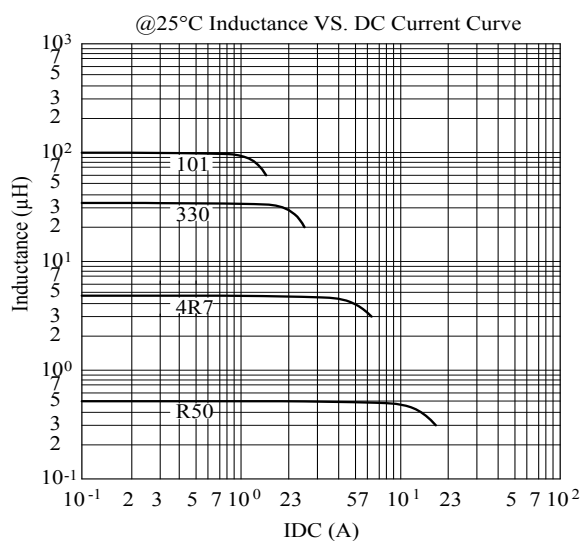
- Telematics
- Infotainment
- BCM



MRN8040 Series

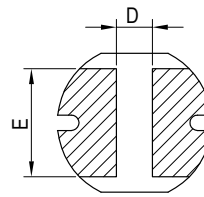
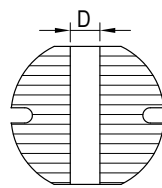
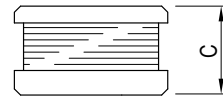
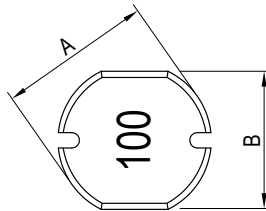
DWG. No.	Inductance (μ H)	Q min. @1 MHz	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms (A) typ.
			typ.	max.			
MRN8040R50YHB-□□□	0.5 $\pm$ 30%	15	5.0	7.0	110	15.0	10.0
MRN80401R0MHB-□□□	1.0 $\pm$ 20%	15	6.9	10.0	85	13.8	8.5
MRN80401R5MHB-□□□	1.5 $\pm$ 20%	15	8.0	11.0	55	12.0	7.0
MRN80402R2MHB-□□□	2.2 $\pm$ 20%	14	11.0	14.0	43	10.5	6.3
MRN80402R7MHB-□□□	2.7 $\pm$ 20%	14	16.0	21.0	37	9.0	5.6
MRN80403R6MHB-□□□	3.6 $\pm$ 20%	13	18.0	24.0	34	8.0	4.9
MRN80404R7MHB-□□□	4.7 $\pm$ 20%	13	24.0	30.0	29	7.0	4.1
MRN80406R8MHB-□□□	6.8 $\pm$ 20%	12	33.0	42.0	23	5.5	3.9
MRN80408R2MHB-□□□	8.2 $\pm$ 20%	11	37.0	48.0	22	5.2	3.7
MRN8040100MHB-□□□	10.0 $\pm$ 20%	11	47.0	61.0	20	4.8	3.1
MRN8040150MHB-□□□	15.0 $\pm$ 20%	10	66.0	86.0	15	3.7	2.4
MRN8040220MHB-□□□	22.0 $\pm$ 20%	10	92.0	120.0	12	3.3	2.2
MRN8040330MHB-□□□	33.0 $\pm$ 20%	8.5	133.0	166.0	10	2.6	1.7
MRN8040470MHB-□□□	47.0 $\pm$ 20%	8.5	190.0	237.0	8.5	2.2	1.4
MRN8040680MHB-□□□	68.0 $\pm$ 20%	8.0	268.0	337.0	7.0	1.7	1.1
MRN8040101MHB-□□□	100.0 $\pm$ 20%	8.0	383.0	479.0	6.0	1.3	1.0

1. Electrical specifications at 25°C
2. Inductance test condition.: 100kHz / 1V
3. Isat base on $\Delta L/L0A=30\%$ typ.
4. Irms base on temp. rise 40°C typ.

MRN8040 Series


0403 / 0604 / 0805 / MER 1006

Non-Shielded



MER1006

For PCB pattern information,
please see page 38

Unit: mm

Series	A	B	C	D	E
AER0403	4.50±0.30	4.00±0.30	3.20±0.30	1.60 ref.	-
AER0604	5.80±0.30	5.20±0.30	4.50±0.30	2.10±0.50	-
AER0805	7.80±0.30	7.00±0.30	5.00±0.50	2.10 ref.	-
MER1006	10.00±0.40	9.00±0.40	5.40±0.40	3.00 ref.	7.00 ref.

Features

- Open magnetic circuit structure
- Low DCR
- Excellent current handling
- High saturation current ratings
- AEC-Q200 Grade 1: AER0604 /AER0805
- AER0604 / AER0805: Operating temp: -40°C ~ +125°C (including self-temperature rise)
- AEC-Q200 Grade 0: AER0403 / MER1006
- AER0403 / MER1006: Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- ADAS
- HVAC
- Infotainment



0403 / 0604 / 0805 / MER 1006

AER0403 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) ref.	Isat (A) typ.	Irms (A) typ.
		typ.	max.			
AER04031R0MLB-□□□	1.0 $\pm$ 20%	19.3	48	113	4.80	2.70
AER04032R2MLB-□□□	2.2 $\pm$ 20%	31.8	71	76	3.30	2.30
AER04033R3MLB-□□□	3.3 $\pm$ 20%	46.9	86	64	2.50	2.00
AER04034R7MLB-□□□	4.7 $\pm$ 20%	64.5	108	50	2.20	1.65
AER04036R8MLB-□□□	6.8 $\pm$ 20%	93.6	126	41	1.70	1.45
AER04038R2MLB-□□□	8.2 $\pm$ 20%	106.0	142	38	1.60	1.40
AER0403100MLB-□□□	10.0 $\pm$ 20%	127.0	172	36	1.40	1.05
AER0403120MLB-□□□	12.0 $\pm$ 20%	146.0	197	32	1.30	1.00
AER0403150MLB-□□□	15.0 $\pm$ 20%	192.0	259	29	1.20	0.85
AER0403180MLB-□□□	18.0 $\pm$ 20%	237.0	309	28	1.10	0.75
AER0403220MLB-□□□	22.0 $\pm$ 20%	270.0	351	25	0.95	0.70
AER0403270MLB-□□□	27.0 $\pm$ 20%	322.0	419	22	0.85	0.65
AER0403330KLB-□□□	33.0 $\pm$ 10%	373.0	485	20	0.80	0.60
AER0403390KLB-□□□	39.0 $\pm$ 10%	449.0	561	18	0.70	0.55
AER0403470KLB-□□□	47.0 $\pm$ 10%	505.0	631	16	0.65	0.50
AER0403560KLB-□□□	56.0 $\pm$ 10%	736.0	920	15	0.60	0.45
AER0403680KLB-□□□	68.0 $\pm$ 10%	822.0	1028	13	0.55	0.40

1. Electrical specifications at 25°C
2. Inductance test condition: 1MHz/1V
3. Isat base on $\Delta L/L0A=10\%$ typ.
4. Irms base on temp. rise 40°C typ.

AER0604 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) ref.	Isat (A) typ.	I _{rms} (A) typ.
		typ.	max.			
AER06041R2MLB-□□□	1.2 $\pm$ 20%	16.0	20.0	155.0	6.00	5.30
AER06041R5MLB-□□□	1.5 $\pm$ 20%	18.5	24.0	123.0	5.30	5.00
AER06042R2MLB-□□□	2.2 $\pm$ 20%	22.9	31.0	80.0	4.20	4.35
AER06042R7MLB-□□□	2.7 $\pm$ 20%	27.8	55.0	60.0	3.80	4.00
AER06043R3MLB-□□□	3.3 $\pm$ 20%	29.9	60.0	50.0	3.50	3.80
AER06043R9MLB-□□□	3.9 $\pm$ 20%	34.0	65.0	44.0	3.20	3.60
AER06044R7MLB-□□□	4.7 $\pm$ 20%	38.2	70.0	47.0	3.00	3.40
AER06045R6MLB-□□□	5.6 $\pm$ 20%	41.9	75.0	41.0	2.75	3.20
AER06046R8MLB-□□□	6.8 $\pm$ 20%	46.7	80.0	36.0	2.40	3.00
AER06048R2MLB-□□□	8.2 $\pm$ 20%	53.7	90.0	31.0	2.20	2.80
AER0604100MLB-□□□	10.0 $\pm$ 20%	62.1	100.0	32.0	2.00	2.60
AER0604120MLB-□□□	12.0 $\pm$ 20%	67.5	120.0	29.0	1.85	2.50
AER0604150MLB-□□□	15.0 $\pm$ 20%	94.7	140.0	26.0	1.65	2.30
AER0604180MLB-□□□	18.0 $\pm$ 20%	114.0	150.0	24.0	1.50	2.00
AER0604220MLB-□□□	22.0 $\pm$ 20%	128.0	180.0	19.0	1.35	1.80
AER0604270MLB-□□□	27.0 $\pm$ 20%	140.0	200.0	18.0	1.20	1.70
AER0604330MLB-□□□	33.0 $\pm$ 20%	184.0	230.0	17.0	1.10	1.55
AER0604390MLB-□□□	39.0 $\pm$ 20%	215.0	320.0	17.0	1.00	1.40
AER0604470MLB-□□□	47.0 $\pm$ 20%	258.0	370.0	14.0	0.90	1.25
AER0604560KLB-□□□	56.0 $\pm$ 10%	298.0	420.0	12.0	0.82	1.10
AER0604680KLB-□□□	68.0 $\pm$ 10%	343.0	460.0	11.0	0.74	1.00
AER0604820KLB-□□□	82.0 $\pm$ 10%	436.0	600.0	8.0	0.68	0.90
AER0604101KLB-□□□	100.0 $\pm$ 10%	559.0	700.0	7.5	0.62	0.80
AER0604121KLB-□□□	120.0 $\pm$ 10%	599.0	900.0	7.5	0.60	0.75
AER0604151KLB-□□□	150.0 $\pm$ 10%	900.0	1100.0	7.0	0.52	0.52
AER0604181KLB-□□□	180.0 $\pm$ 10%	1030.0	1380.0	6.0	0.50	0.50
AER0604221KLB-□□□	220.0 $\pm$ 10%	1325.0	1570.0	5.0	0.47	0.47

1. Electrical specifications at 25°C
2. Inductance test condition : 1.2 μ H~82 μ H at 1MHz/1V
100 μ H~220 μ H at 1kHz/1V
3. Rated current: The DC current at which the inductance decreases to 90% of it's initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)

0403 / 0604 / 0805 / MER 1006

AER0805 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms (A) typ.
		typ.	max.			
AER08051R5MLB-□□□	1.5 $\pm$ 20%	15	20	115.0	6.50	5.80
AER08052R5MLB-□□□	2.5 $\pm$ 20%	20	27	71.2	5.00	5.00
AER08053R3MLB-□□□	3.3 $\pm$ 20%	24	32	53.3	4.50	4.60
AER08054R7MLB-□□□	4.7 $\pm$ 20%	28	38	44.2	4.00	4.30
AER08055R6MLB-□□□	5.6 $\pm$ 20%	32	43	34.9	3.70	4.00
AER08056R8MLB-□□□	6.8 $\pm$ 20%	36	48	32.0	3.20	3.80
AER08058R2MLB-□□□	8.2 $\pm$ 20%	39	52	28.5	3.00	3.60
AER0805100MLB-□□□	10.0 $\pm$ 20%	50	70	27.5	2.60	3.20
AER0805120MLB-□□□	12.0 $\pm$ 20%	56	80	25.8	2.40	3.00
AER0805150MLB-□□□	15.0 $\pm$ 20%	60	90	22.5	2.20	2.50
AER0805180MLB-□□□	18.0 $\pm$ 20%	74	100	17.6	2.00	2.45
AER0805220MLB-□□□	22.0 $\pm$ 20%	82	110	16.5	1.80	2.35
AER0805270MLB-□□□	27.0 $\pm$ 20%	94	120	14.3	1.70	2.20
AER0805330MLB-□□□	33.0 $\pm$ 20%	117	130	13.2	1.60	2.00
AER0805390MLB-□□□	39.0 $\pm$ 20%	137	160	12.6	1.50	1.90
AER0805470KLB-□□□	47.0 $\pm$ 10%	165	180	12.1	1.40	1.70
AER0805560KLB-□□□	56.0 $\pm$ 10%	200	240	11.5	1.20	1.60
AER0805680KLB-□□□	68.0 $\pm$ 10%	230	280	10.5	1.10	1.45
AER0805820KLB-□□□	82.0 $\pm$ 10%	300	370	9.4	1.00	1.20
AER0805101KLB-□□□	100.0 $\pm$ 10%	320	430	8.8	0.90	1.10
AER0805121KLB-□□□	120.0 $\pm$ 10%	360	470	7.7	0.80	1.00
AER0805151KLB-□□□	150.0 $\pm$ 10%	515	640	7.2	0.72	0.90
AER0805181KLB-□□□	180.0 $\pm$ 10%	576	710	6.2	0.65	0.85
AER0805221KLB-□□□	220.0 $\pm$ 10%	750	960	6.0	0.60	0.80
AER0805271KLB-□□□	270.0 $\pm$ 10%	870	1110	5.0	0.55	0.70
AER0805331KLB-□□□	330.0 $\pm$ 10%	1020	1200	4.9	0.50	0.65
AER0805391KLB-□□□	390.0 $\pm$ 10%	1290	1500	4.4	0.45	0.60
AER0805471KLB-□□□	470.0 $\pm$ 10%	1470	1700	3.6	0.40	0.55

1. Electrical specifications at 25°C
2. Inductance test condition : 1.5 μ H~82 μ H at 1MHz/1V
100 μ H~470 μ H at 1kHz/1V
3. Rated current: The DC current at which the inductance decreases to 90% of its initial value or when $\Delta t=40^{\circ}\text{C}$, whichever is lower($T_a=20^{\circ}\text{C}$)

0403 / 0604 / 0805 / MER 1006
MER1006 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) ref.	Isat (A) typ.	Irms (A) max.
		typ.	max.			
MER10061R8MLB-□□□	1.8 $\pm$ 20%	10.8	18	69.6	7.70	7.20
MER10062R2MLB-□□□	2.2 $\pm$ 20%	14.3	21	57.7	6.40	6.00
MER10063R3MLB-□□□	3.3 $\pm$ 20%	16.6	24	48.8	5.70	5.40
MER10063R9MLB-□□□	3.9 $\pm$ 20%	18.8	27	40.6	5.50	5.20
MER10064R7MLB-□□□	4.7 $\pm$ 20%	23.3	36	37.4	5.00	4.70
MER10065R6MLB-□□□	5.6 $\pm$ 20%	25.9	40	35.6	4.80	4.50
MER10066R8MLB-□□□	6.8 $\pm$ 20%	28.1	44	32.1	4.50	4.20
MER10068R2MLB-□□□	8.2 $\pm$ 20%	32.3	48	27.9	4.30	4.10
MER1006100MLB-□□□	10 $\pm$ 20%	34.2	60	25.0	4.10	3.80
MER1006120MLB-□□□	12 $\pm$ 20%	36.9	70	23.0	3.85	3.60
MER1006150MLB-□□□	15 $\pm$ 20%	43.6	80	19.8	3.64	3.40
MER1006180MLB-□□□	18 $\pm$ 20%	60.7	90	19.3	3.00	2.80
MER1006220MLB-□□□	22 $\pm$ 20%	68.3	100	16.0	2.75	2.60
MER1006270MLB-□□□	27 $\pm$ 20%	87.6	110	13.3	2.45	2.30
MER1006330MLB-□□□	33 $\pm$ 20%	96.9	120	12.1	2.35	2.20
MER1006390MLB-□□□	39 $\pm$ 20%	111	140	12.0	2.00	1.90
MER1006470KLB-□□□	47 $\pm$ 10%	126	170	11.0	1.90	1.80
MER1006560KLB-□□□	56 $\pm$ 10%	141	190	10.2	1.80	1.70
MER1006680KLB-□□□	68 $\pm$ 10%	176	220	9.4	1.70	1.60
MER1006820KLB-□□□	82 $\pm$ 10%	201	250	8.8	1.60	1.50
MER1006101KLB-□□□	100 $\pm$ 10%	262	350	7.3	1.35	1.30
MER1006121KLB-□□□	120 $\pm$ 10%	301	400	6.6	1.25	1.20
MER1006151KLB-□□□	150 $\pm$ 10%	350	470	6.6	1.15	1.10
MER1006181KLB-□□□	180 $\pm$ 10%	457	630	6.1	1.10	1.00
MER1006221KLB-□□□	220 $\pm$ 10%	524	730	5.3	0.95	0.90
MER1006271KLB-□□□	270 $\pm$ 10%	711	970	4.3	0.85	0.80
MER1006331KLB-□□□	330 $\pm$ 10%	814	1150	4.3	0.75	0.70
MER1006391KLB-□□□	390 $\pm$ 10%	923	1300	3.3	0.70	0.65
MER1006471KLB-□□□	470 $\pm$ 10%	1056	1480	3.3	0.64	0.60
MER1006561KLB-□□□	560 $\pm$ 10%	1359	1900	3.3	0.59	0.55
MER1006681KLB-□□□	680 $\pm$ 10%	1559	2250	2.8	0.54	0.50
MER1006821KLB-□□□	820 $\pm$ 10%	1805	2550	2.2	0.48	0.45

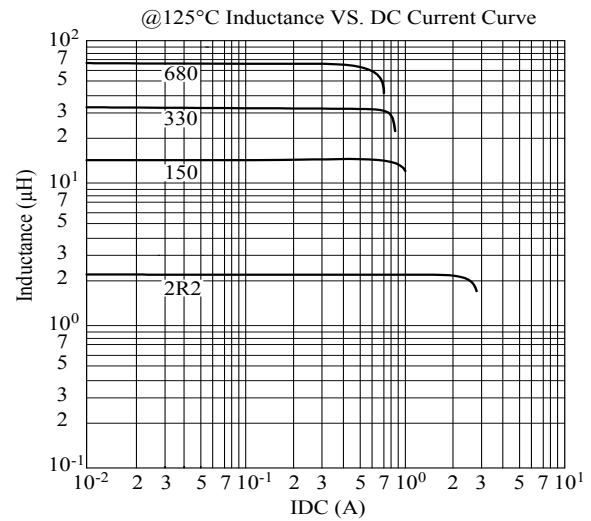
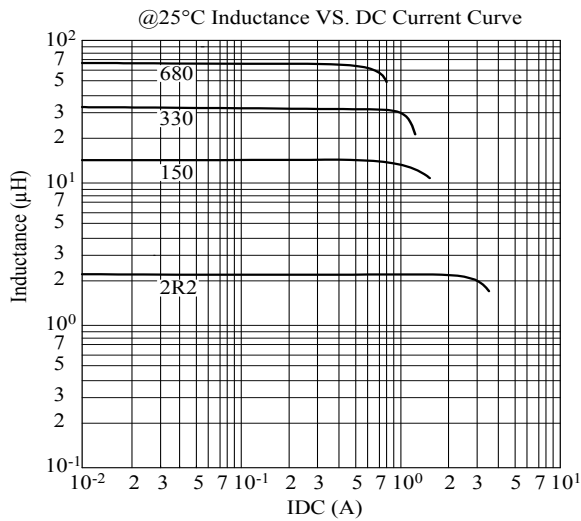
1. Electrical specifications at 25°C

2. Inductance test condition : 1.8 μ H~82 μ H at 1MHz/1V
100 μ H~820 μ H at 1kHz/1V

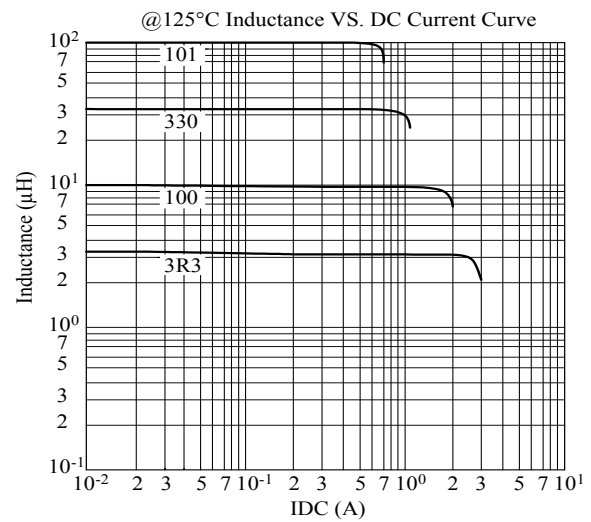
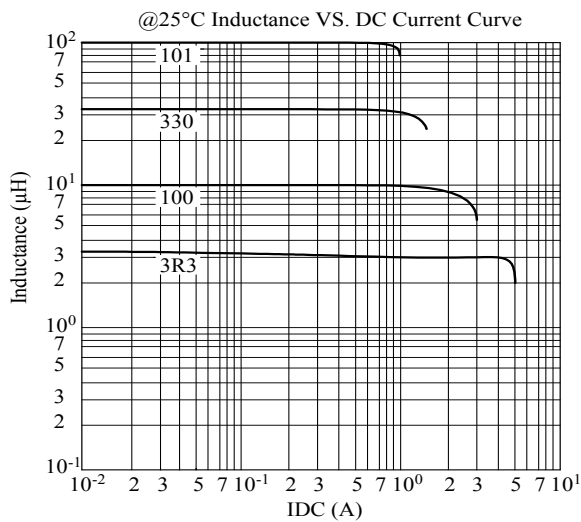
3. Isat base on $\Delta L/L0A=10\%$ typ.

4. Irms base on temp. rise 40°C max.

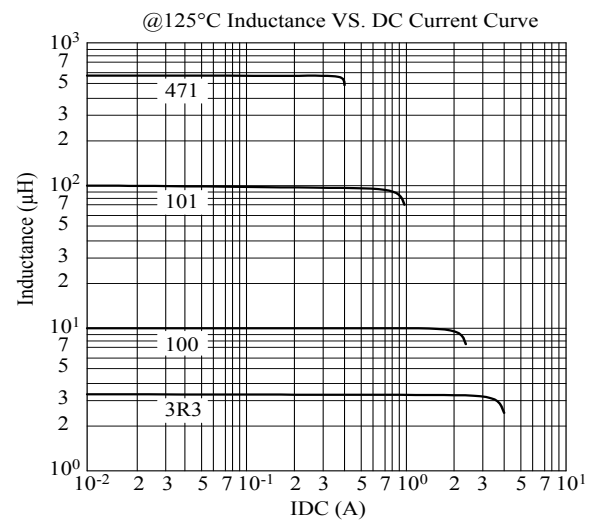
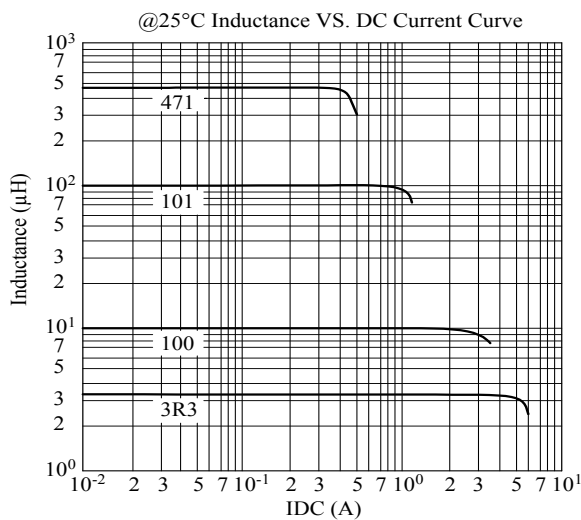
AER0403 Series



AER0604 Series

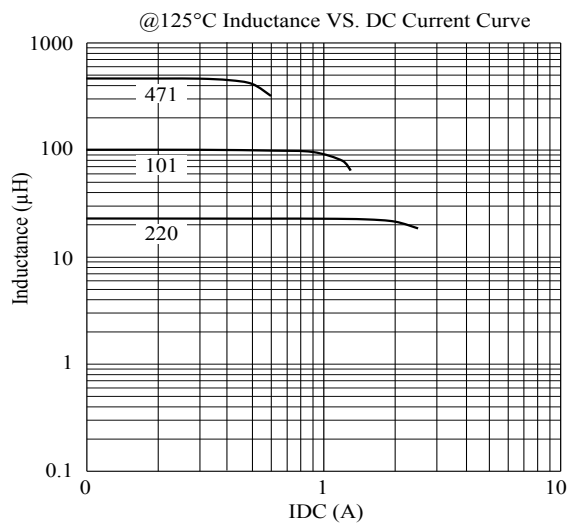
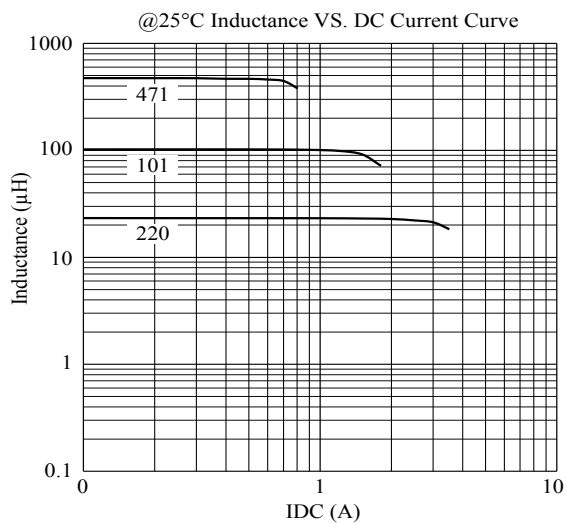


AER0805 Series

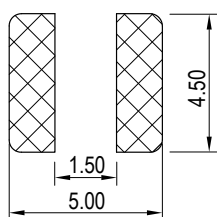


0403 / 0604 / 0805 / MER 1006

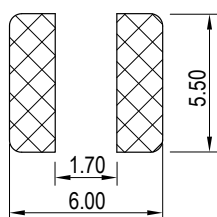
MER1006 Series



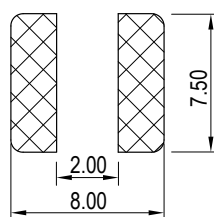
PCB Pattern



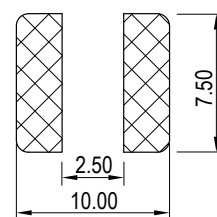
AER0403



AER0604



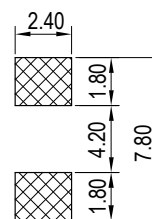
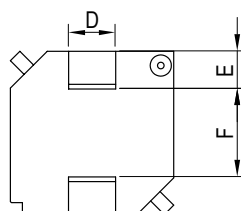
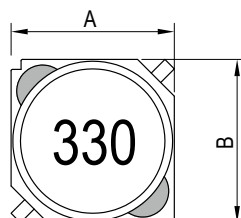
AER0805



MER1006

7030

Non-Shielded



(PCB Pattern)

Unit: mm

Series	A	B	C	D	E	F
ASB7030	7.00±0.30	7.00±0.30	3.00±0.30	2.00 typ.	1.50 typ.	4.00 typ.

Features

- Open magnetic circuit structure
- Low DCR values
- High saturation current ratings
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- ADAS
- HVAC
- Infotainment

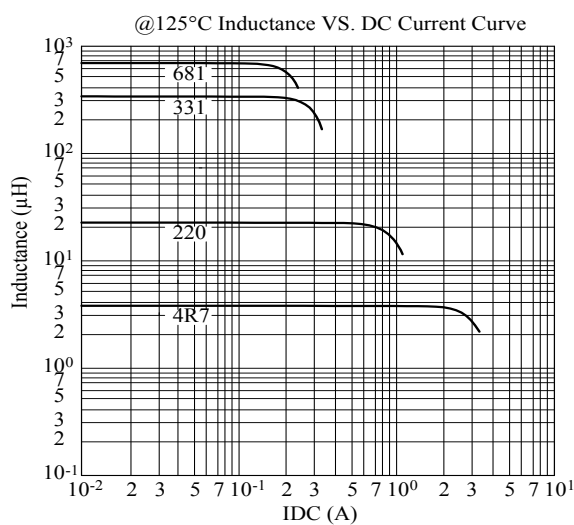
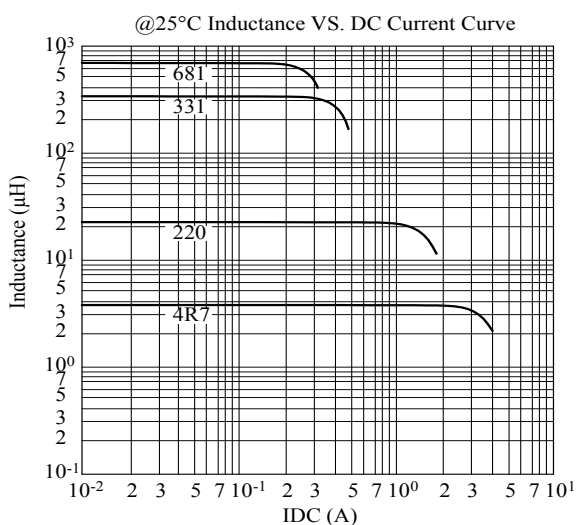


7030 / 1305

ASB7030 Series

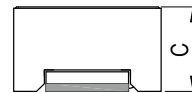
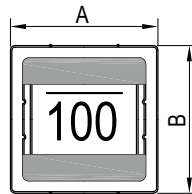
DWG. No.	Inductance (μ H) 100kHz / 0.1V	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (Ω) max.	I _{rms} (A) max.	I _{sat} (A) typ.
ASB70301R0MLB-□□□	1.0 $\pm$ 20%	18	7.96	113	0.022	3.00	4.30
ASB70301R5MLB-□□□	1.5 $\pm$ 20%	17	7.96	100	0.027	2.75	3.60
ASB70302R2MLB-□□□	2.2 $\pm$ 20%	17	7.96	80	0.030	2.60	3.20
ASB70303R5MLB-□□□	3.5 $\pm$ 20%	17	7.96	59	0.038	2.20	2.60
ASB70304R7MLB-□□□	4.7 $\pm$ 20%	14	7.96	43	0.048	1.85	2.25
ASB70306R2MLB-□□□	6.2 $\pm$ 20%	17	7.96	41	0.058	1.65	2.00
ASB7030100MLB-□□□	10.0 $\pm$ 20%	16	2.52	35	0.075	1.50	1.60
ASB7030150MLB-□□□	15.0 $\pm$ 20%	14	2.52	33	0.115	1.20	1.30
ASB7030220MLB-□□□	22.0 $\pm$ 20%	14	2.52	32	0.160	1.02	1.10
ASB7030330MLB-□□□	33.0 $\pm$ 20%	13	2.52	24	0.230	0.85	0.90
ASB7030470KLB-□□□	47.0 $\pm$ 10%	12	2.52	18	0.340	0.70	0.78
ASB7030680KLB-□□□	68.0 $\pm$ 10%	12	2.52	16	0.480	0.58	0.64
ASB7030101KLB-□□□	100.0 $\pm$ 10%	18	0.796	15	0.720	0.46	0.52
ASB7030151KLB-□□□	150.0 $\pm$ 10%	18	0.796	12	0.920	0.40	0.42
ASB7030221KLB-□□□	220.0 $\pm$ 10%	23	0.796	9	1.600	0.32	0.34
ASB7030331KLB-□□□	330.0 $\pm$ 10%	24	0.796	7	2.200	0.26	0.28
ASB7030471KLB-□□□	470.0 $\pm$ 10%	30	0.796	6	2.800	0.22	0.23
ASB7030681KLB-□□□	680.0 $\pm$ 10%	28	0.796	5	4.350	0.18	0.18

1. Electrical specifications at 25°C
2. I_{rms} base on temperature rise 30°C max.
3. I_{sat} base on $\Delta L/L_0A=10\%$ typ .

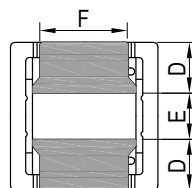
ASB7030 Series


3818 / 4818 / 4828 / 5818 / 5828 / 6822

Standard



AQS5818
AQS5828
AQS6822



For PCB pattern information,
please see page 49

Unit: mm

Series	A	B	C	C'	D	E	F	H
AQS3818	3.80±0.20	3.80±0.20	1.80±0.20		1.30±0.20	1.20±0.20	2.00±0.20	
AQS4818	4.80±0.20	4.80±0.20	1.80±0.20		1.60±0.20	1.60±0.20	2.90±0.20	
AQS4828	4.80±0.20	4.80±0.20	2.80±0.20		1.60±0.20	1.60±0.20	2.90±0.20	
AQS5818	5.80±0.30	5.80±0.30	1.80±0.20	2.20 max.	1.90±0.30	2.00±0.30	3.40±0.20	0.30 min.
AQS5828	5.80±0.30	5.80±0.30	2.80±0.20	3.20 max.	1.90±0.30	2.00±0.30	3.40±0.20	0.30 min.
AQS6822	6.80±0.30	6.80±0.30	2.30±0.20	2.70max.	2.10±0.30	2.60±0.30	4.25±0.20	0.30 min.

Features

- Magnetic shielding allows high-density mounting
- Low profile
- Low RDC
- High current handling capability
- AEC-Q200 Grade 0: AQS3818 / AQS4818
- Operating temp: -55°C ~ +150°C (including self-temperature rise)
- AEC-Q200 Grade 1: AQS4828 / AQS5818 / AQS5828 / AQS6822
- Operating temp: -40°C ~ +150°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



3818 / 4818 / 4828 / 5818 / 5828 / 6822

AQS3818 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
		typ.	max.				
AQS38181R0YLB-□□□	1.0 $\pm$ 30%	27.5	37.0	165	2.10	2.75	3.60
AQS38181R5YLB-□□□	1.5 $\pm$ 30%	33.0	47.0	125	1.60	2.50	3.10
AQS38182R2YLB-□□□	2.2 $\pm$ 30%	45.5	60.0	95	1.40	2.00	2.60
AQS38182R7YLB-□□□	2.7 $\pm$ 30%	49.5	65.0	90	1.30	1.90	2.50
AQS38183R3YLB-□□□	3.3 $\pm$ 30%	64.5	85.0	75	1.15	1.70	2.10
AQS38183R9YLB-□□□	3.9 $\pm$ 30%	80.0	105.0	70	1.05	1.60	2.00
AQS38184R7YLB-□□□	4.7 $\pm$ 30%	90.0	120.0	60	0.95	1.50	1.90
AQS38186R8YLB-□□□	6.8 $\pm$ 30%	125.0	160.0	50	0.80	1.25	1.60
AQS3818100MLB-□□□	10.0 $\pm$ 20%	180.0	235.0	40	0.65	1.00	1.30
AQS3818150MLB-□□□	15.0 $\pm$ 20%	260.0	340.0	30	0.55	0.80	1.05
AQS3818220MLB-□□□	22.0 $\pm$ 20%	395.0	500.0	25	0.43	0.65	0.80
AQS3818330MLB-□□□	33.0 $\pm$ 20%	590.0	740.0	20	0.34	0.50	0.65
AQS3818470MLB-□□□	47.0 $\pm$ 20%	825.0	1030.0	15	0.30	0.45	0.56
AQS3818680MLB-□□□	68.0 $\pm$ 20%	1280.0	1600.0	13	0.24	0.38	0.46
AQS3818101MLB-□□□	100.0 $\pm$ 20%	2040.0	2600.0	11	0.20	0.28	0.34
AQS3818221MLB-□□□	220.0 $\pm$ 20%	4750.0	5700.0	6	0.16	0.20	0.26

AQS4818 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
		typ.	max.				
AQS48181R0YLB-□□□	1.0 $\pm$ 30%	19.2	25.0	140	3.60	4.00	5.10
AQS48181R5YLB-□□□	1.5 $\pm$ 30%	25.2	35.0	105	3.00	3.75	4.70
AQS48182R2YLB-□□□	2.2 $\pm$ 30%	33.7	45.0	90	2.43	2.70	3.50
AQS48183R3YLB-□□□	3.3 $\pm$ 30%	42.8	55.0	70	2.10	2.50	3.10
AQS48183R9YLB-□□□	3.9 $\pm$ 30%	54.5	70.0	65	1.90	2.20	2.70
AQS48184R7YLB-□□□	4.7 $\pm$ 30%	59.4	80.0	55	1.50	2.00	2.60
AQS48185R6YLB-□□□	5.6 $\pm$ 30%	74.3	90.0	50	1.35	1.75	2.30
AQS48186R8YLB-□□□	6.8 $\pm$ 30%	82.1	100.0	45	1.25	1.65	2.20
AQS48188R2YLB-□□□	8.2 $\pm$ 30%	97.7	130.0	43	1.15	1.55	1.90
AQS4818100MLB-□□□	10.0 $\pm$ 20%	109.8	140.0	40	1.05	1.45	1.80
AQS4818120MLB-□□□	12.0 $\pm$ 20%	132.2	170.0	37	0.95	1.30	1.60
AQS4818150MLB-□□□	15.0 $\pm$ 20%	176.7	220.0	30	0.87	1.25	1.50
AQS4818180MLB-□□□	18.0 $\pm$ 20%	214.8	280.0	28	0.79	1.10	1.40
AQS4818220MLB-□□□	22.0 $\pm$ 20%	280.3	360.0	25	0.72	1.00	1.25
AQS4818270MLB-□□□	27.0 $\pm$ 20%	317.6	400.0	22	0.63	0.90	1.15
AQS4818330MLB-□□□	33.0 $\pm$ 20%	399.1	500.0	20	0.56	0.70	0.90
AQS4818390MLB-□□□	39.0 $\pm$ 20%	439.3	540.0	17	0.53	0.63	0.80
AQS4818470MLB-□□□	47.0 $\pm$ 20%	504.1	630.0	16	0.47	0.60	0.75

3818 / 4818 / 4828 / 5818 / 5828 / 6822

AQS4828 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
		typ.	max.				
AQS48281R2YLB-□□□	1.2 $\pm$ 30%	18.5	24.0	155.0	3.00	3.50	5.00
AQS48281R8YLB-□□□	1.8 $\pm$ 30%	22.7	30.0	105.0	2.50	3.00	4.60
AQS48282R7YLB-□□□	2.7 $\pm$ 30%	26.2	34.0	80.0	2.20	2.50	4.00
AQS48283R9YLB-□□□	3.9 $\pm$ 30%	36.3	47.0	60.0	1.80	2.20	3.40
AQS48284R7YLB-□□□	4.7 $\pm$ 30%	41.4	54.0	50.0	1.60	2.10	3.00
AQS48286R8YLB-□□□	6.8 $\pm$ 30%	57.0	74.0	40.0	1.30	1.65	2.60
AQS48287R4YLB-□□□	7.4 $\pm$ 30%	66.8	87.0	38.0	1.28	1.63	2.50
AQS48288R2YLB-□□□	8.2 $\pm$ 30%	66.8	87.0	35.0	1.25	1.60	2.40
AQS4828100MLB-□□□	10.0 $\pm$ 20%	76.4	100.0	30.0	1.10	1.50	2.30
AQS4828120MLB-□□□	12.0 $\pm$ 20%	100.0	125.0	27.0	0.95	1.35	2.00
AQS4828150MLB-□□□	15.0 $\pm$ 20%	108.8	145.0	25.0	0.92	1.30	1.80
AQS4828180MLB-□□□	18.0 $\pm$ 20%	125.0	160.0	22.0	0.80	1.20	1.70
AQS4828220MLB-□□□	22.0 $\pm$ 20%	145.9	185.0	20.0	0.68	1.10	1.55
AQS4828270MLB-□□□	27.0 $\pm$ 20%	190.6	240.0	17.0	0.65	1.00	1.45
AQS4828330MLB-□□□	33.0 $\pm$ 20%	208.2	260.0	15.0	0.60	0.90	1.40
AQS4828390MLB-□□□	39.0 $\pm$ 20%	209.1	265.0	14.0	0.58	0.89	1.30
AQS4828470MLB-□□□	47.0 $\pm$ 20%	215.0	270.0	13.0	0.47	0.88	1.20
AQS4828560MLB-□□□	56.0 $\pm$ 20%	260.4	320.0	12.0	0.40	0.85	1.05
AQS4828680MLB-□□□	68.0 $\pm$ 20%	294.3	370.0	11.0	0.38	0.80	0.90
AQS4828820MLB-□□□	82.0 $\pm$ 20%	381.9	480.0	10.0	0.35	0.70	0.85
AQS4828101MLB-□□□	100.0 $\pm$ 20%	495.3	600.0	8.5	0.33	0.65	0.70
AQS4828121MLB-□□□	120.0 $\pm$ 20%	630.0	760.0	8.0	0.30	0.50	0.65
AQS4828151MLB-□□□	150.0 $\pm$ 20%	713.9	860.0	7.0	0.28	0.45	0.60
AQS4828181MLB-□□□	180.0 $\pm$ 20%	899.1	1080.0	6.0	0.26	0.43	0.55
AQS4828221MLB-□□□	220.0 $\pm$ 20%	1000.7	1250.0	5.5	0.24	0.41	0.50
AQS4828271MLB-□□□	270.0 $\pm$ 20%	1416.2	1700.0	5.0	0.21	0.40	0.45
AQS4828331MLB-□□□	330.0 $\pm$ 20%	1656.8	1800.0	4.5	0.20	0.32	0.40
AQS4828391MLB-□□□	390.0 $\pm$ 20%	2213.6	2400.0	4.0	0.17	0.30	0.35

3818 / 4818 / 4828 / 5818 / 5828 / 6822

AQS5818 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
		typ.	max.				
AQS58181R5YLB-□□□	1.5 $\pm$ 30%	24.0	31.0	100.0	3.90	3.00	4.80
AQS58182R0YLB-□□□	2.0 $\pm$ 30%	33.0	43.0	83.0	3.20	2.50	3.50
AQS58183R0YLB-□□□	3.0 $\pm$ 30%	58.0	75.0	73.0	2.70	1.90	2.65
AQS58183R9YLB-□□□	3.9 $\pm$ 30%	72.0	94.0	63.0	2.40	1.70	2.40
AQS58185R0YLB-□□□	5.0 $\pm$ 30%	83.0	108.0	56.0	2.10	1.60	2.20
AQS58186R2YLB-□□□	6.2 $\pm$ 30%	95.0	123.0	51.0	1.90	1.50	2.00
AQS58187R5YLB-□□□	7.5 $\pm$ 30%	115.0	152.0	43.0	1.75	1.35	1.70
AQS58189R0YLB-□□□	9.0 $\pm$ 30%	140.0	185.0	38.0	1.60	1.20	1.60
AQS5818100MLB-□□□	10.0 $\pm$ 20%	180.0	235.0	30.0	1.45	1.10	1.50
AQS5818120MLB-□□□	12.0 $\pm$ 20%	195.0	250.0	29.0	1.35	1.00	1.45
AQS5818150MLB-□□□	15.0 $\pm$ 20%	230.0	300.0	25.0	1.20	0.90	1.30
AQS5818180MLB-□□□	18.0 $\pm$ 20%	280.0	365.0	23.0	1.15	0.85	1.20
AQS5818220MLB-□□□	22.0 $\pm$ 20%	365.0	475.0	21.0	0.98	0.75	1.05
AQS5818270MLB-□□□	27.0 $\pm$ 20%	410.0	510.0	20.0	0.90	0.70	0.95
AQS5818330MLB-□□□	33.0 $\pm$ 20%	455.0	570.0	18.0	0.83	0.65	0.90
AQS5818390MLB-□□□	39.0 $\pm$ 20%	570.0	710.0	15.0	0.75	0.60	0.85
AQS5818470MLB-□□□	47.0 $\pm$ 20%	650.0	810.0	14.0	0.68	0.57	0.80
AQS5818560MLB-□□□	56.0 $\pm$ 20%	700.0	875.0	13.0	0.63	0.55	0.75
AQS5818680MLB-□□□	68.0 $\pm$ 20%	965.0	1205.0	11.0	0.56	0.47	0.58
AQS5818820MLB-□□□	82.0 $\pm$ 20%	1135.0	1420.0	10.0	0.52	0.43	0.55
AQS5818101MLB-□□□	100.0 $\pm$ 20%	1515.0	1890.0	9.0	0.47	0.37	0.52
AQS5818121MLB-□□□	120.0 $\pm$ 20%	1690.0	2110.0	8.0	0.42	0.35	0.50
AQS5818151MLB-□□□	150.0 $\pm$ 20%	2140.0	2675.0	7.0	0.38	0.31	0.44
AQS5818181MLB-□□□	180.0 $\pm$ 20%	2700.0	3245.0	6.0	0.34	0.28	0.35
AQS5818221MLB-□□□	220.0 $\pm$ 20%	3400.0	4080.0	5.0	0.32	0.24	0.33

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AQS5828 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
		typ.	max.				
AQS58282R6YLB-□□□	2.6 $\pm$ 30%	23.0	30.0	78.0	3.15	3.25	4.50
AQS58283R3YLB-□□□	3.3 $\pm$ 30%	27.0	35.0	70.0	2.80	3.20	4.40
AQS58284R7YLB-□□□	4.7 $\pm$ 30%	31.0	40.0	48.0	2.57	3.00	4.00
AQS58285R3YLB-□□□	5.3 $\pm$ 30%	35.0	42.0	46.0	2.20	2.80	3.80
AQS58286R2YLB-□□□	6.2 $\pm$ 30%	45.0	57.0	41.0	2.10	2.60	3.50
AQS58288R2YLB-□□□	8.2 $\pm$ 30%	49.0	63.0	37.0	1.62	2.30	3.00
AQS5828100MLB-□□□	10.0 $\pm$ 20%	64.0	83.0	32.0	1.55	2.00	2.60
AQS5828120MLB-□□□	12.0 $\pm$ 20%	76.0	100.0	25.0	1.50	1.85	2.50
AQS5828150MLB-□□□	15.0 $\pm$ 20%	90.0	115.0	25.0	1.35	1.70	2.25
AQS5828180MLB-□□□	18.0 $\pm$ 20%	100.0	130.0	22.0	1.30	1.60	2.15
AQS5828220MLB-□□□	22.0 $\pm$ 20%	125.0	160.0	19.0	1.15	1.35	1.75
AQS5828270MLB-□□□	27.0 $\pm$ 20%	147.0	180.0	18.0	1.05	1.25	1.65
AQS5828330MLB-□□□	33.0 $\pm$ 20%	190.0	230.0	15.0	0.92	1.10	1.40
AQS5828390MLB-□□□	39.0 $\pm$ 20%	200.0	260.0	14.0	0.86	1.05	1.37
AQS5828470MLB-□□□	47.0 $\pm$ 20%	247.0	305.0	13.0	0.78	1.00	1.33
AQS5828560MLB-□□□	56.0 $\pm$ 20%	315.0	395.0	11.0	0.70	0.85	1.13
AQS5828680MLB-□□□	68.0 $\pm$ 20%	375.0	470.0	10.0	0.65	0.80	1.03
AQS5828820MLB-□□□	82.0 $\pm$ 20%	425.0	530.0	9.0	0.60	0.73	0.95
AQS5828101MLB-□□□	100.0 $\pm$ 20%	550.0	645.0	8.0	0.53	0.60	0.80
AQS5828151MLB-□□□	150.0 $\pm$ 20%	770.0	910.0	7.0	0.45	0.55	0.70
AQS5828181MLB-□□□	180.0 $\pm$ 20%	940.0	1100.0	5.5	0.42	0.48	0.64
AQS5828221MLB-□□□	220.0 $\pm$ 20%	1095.0	1200.0	5.0	0.37	0.45	0.62
AQS5828331MLB-□□□	330.0 $\pm$ 20%	1830.0	2100.0	4.0	0.30	0.35	0.46
AQS5828681MLB-□□□	680.0 $\pm$ 20%	4170.0	4800.0	3.0	0.21	0.23	0.31
AQS5828102MLB-□□□	1000.0 $\pm$ 20%	6360.0	7300.0	2.0	0.13	0.15	0.21

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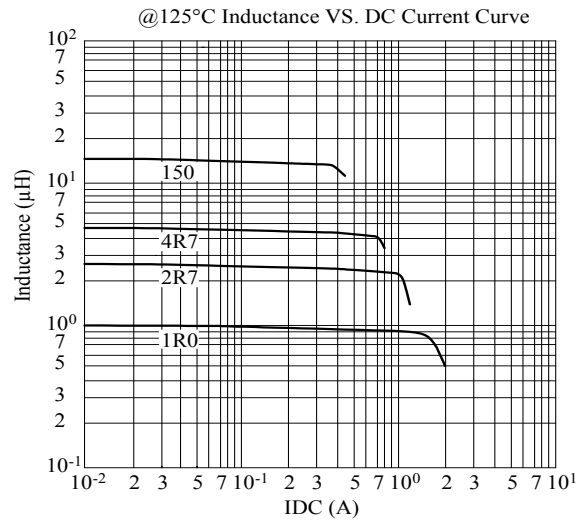
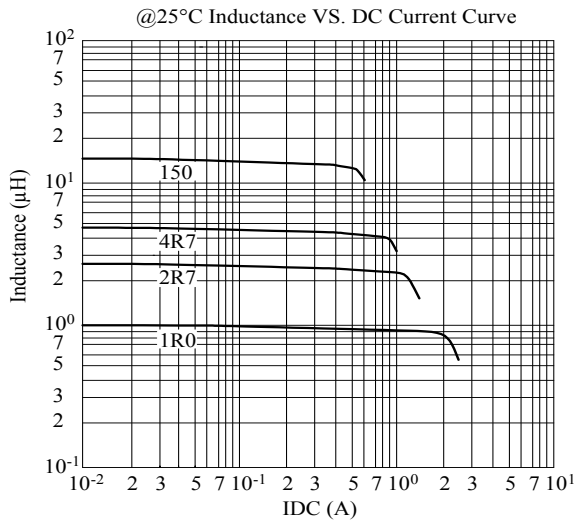
AQS6822 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		SRF (MHz) typ.	Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
		typ.	max.				
AQS68221R0YLB-□□□	1.0 $\pm$ 30%	15.0	19.0	109.0	4.40	4.20	5.80
AQS68221R5YLB-□□□	1.5 $\pm$ 30%	17.0	22.0	77.0	3.50	3.70	5.00
AQS68222R2YLB-□□□	2.2 $\pm$ 30%	21.0	27.0	72.0	2.70	3.40	4.80
AQS68223R3YLB-□□□	3.3 $\pm$ 30%	25.0	33.0	62.0	2.40	3.00	4.30
AQS68225R0YLB-□□□	5.0 $\pm$ 30%	38.0	50.0	48.0	2.00	2.60	3.60
AQS68226R2YLB-□□□	6.2 $\pm$ 30%	44.0	57.0	42.0	1.70	2.40	3.40
AQS68227R5YLB-□□□	7.5 $\pm$ 30%	49.0	64.0	36.0	1.55	2.30	3.20
AQS6822100MLB-□□□	10.0 $\pm$ 20%	68.0	88.0	33.0	1.35	2.00	2.70
AQS6822120MLB-□□□	12.0 $\pm$ 20%	70.0	90.0	32.0	1.25	1.90	2.65
AQS6822150MLB-□□□	15.0 $\pm$ 20%	84.0	110.0	23.0	1.10	1.70	2.45
AQS6822180MLB-□□□	18.0 $\pm$ 20%	100.0	130.0	22.0	1.00	1.60	2.25
AQS6822220MLB-□□□	22.0 $\pm$ 20%	126.0	165.0	21.0	0.95	1.40	2.00
AQS6822270MLB-□□□	27.0 $\pm$ 20%	167.0	220.0	19.0	0.80	1.25	1.75
AQS6822330MLB-□□□	33.0 $\pm$ 20%	200.0	235.0	18.0	0.75	1.10	1.60
AQS6822390MLB-□□□	39.0 $\pm$ 20%	232.0	285.0	15.0	0.64	1.05	1.50
AQS6822470MLB-□□□	47.0 $\pm$ 20%	283.0	345.0	14.0	0.60	0.95	1.35
AQS6822560MLB-□□□	56.0 $\pm$ 20%	314.0	390.0	13.0	0.56	0.85	1.20
AQS6822680MLB-□□□	68.0 $\pm$ 20%	391.0	480.0	12.0	0.52	0.80	1.15
AQS6822820MLB-□□□	82.0 $\pm$ 20%	437.0	540.0	10.0	0.45	0.77	1.10
AQS6822101MLB-□□□	100.0 $\pm$ 20%	560.0	680.0	9.5	0.42	0.67	0.95
AQS6822121MLB-□□□	120.0 $\pm$ 20%	628.0	760.0	8.0	0.39	0.58	0.82
AQS6822151MLB-□□□	150.0 $\pm$ 20%	945.0	1100.0	7.5	0.34	0.52	0.73
AQS6822181MLB-□□□	180.0 $\pm$ 20%	1026.0	1200.0	7.0	0.31	0.48	0.68
AQS6822221MLB-□□□	220.0 $\pm$ 20%	1170.0	1380.0	5.5	0.28	0.46	0.65
AQS6822271MLB-□□□	270.0 $\pm$ 20%	1510.0	1770.0	5.2	0.24	0.40	0.55
AQS6822331MLB-□□□	330.0 $\pm$ 20%	1676.0	2000.0	5.0	0.23	0.36	0.51
AQS6822391MLB-□□□	390.0 $\pm$ 20%	2178.0	2600.0	4.8	0.21	0.32	0.46
AQS6822471MLB-□□□	470.0 $\pm$ 20%	2693.0	3200.0	4.0	0.19	0.30	0.42
AQS6822561MLB-□□□	560.0 $\pm$ 20%	3019.0	3580.0	3.8	0.18	0.27	0.39
AQS6822681MLB-□□□	680.0 $\pm$ 20%	3599.0	4300.0	3.2	0.16	0.26	0.36
AQS6822821MLB-□□□	820.0 $\pm$ 20%	4639.0	5500.0	3.0	0.14	0.23	0.32
AQS6822102MLB-□□□	1000.0 $\pm$ 20%	5742.0	6850.0	2.6	0.13	0.20	0.28

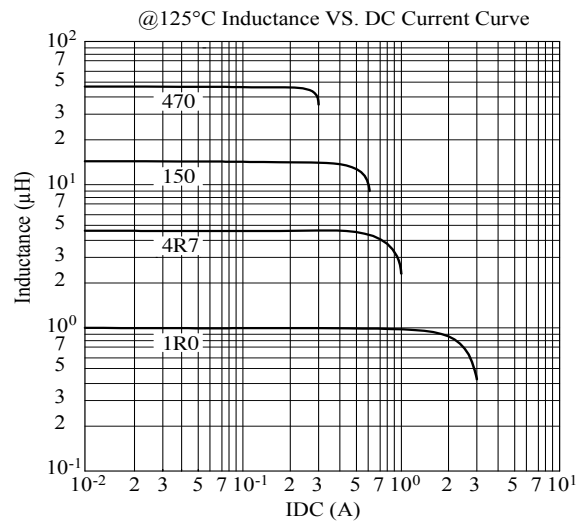
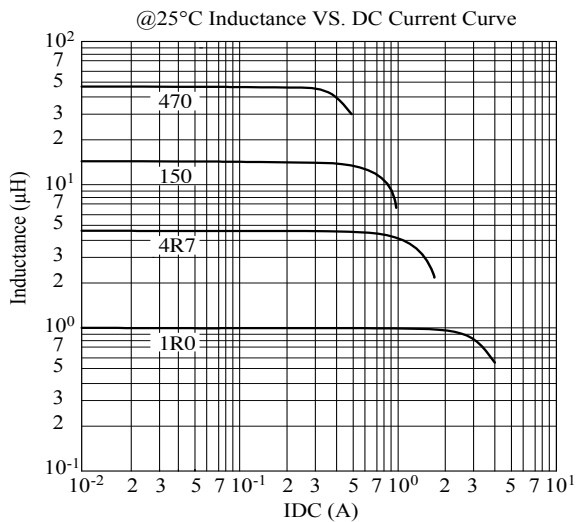
1. Electrical specifications at 25°C
2. Inductance test condition: 100kHz / 0.1V
3. Isat base on $\Delta L/L0A=35\%$ typ.
4. Irms1 base on Temp. rise 20°C typ.
5. Irms2 base on Temp. rise 40°C typ

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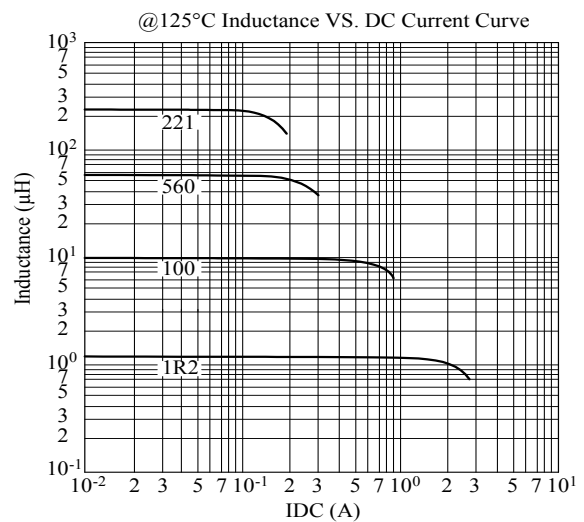
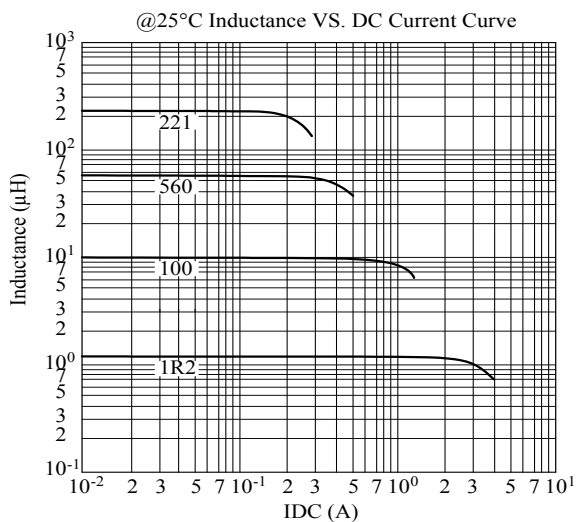
AQS3818 Series



AQS4818 Series

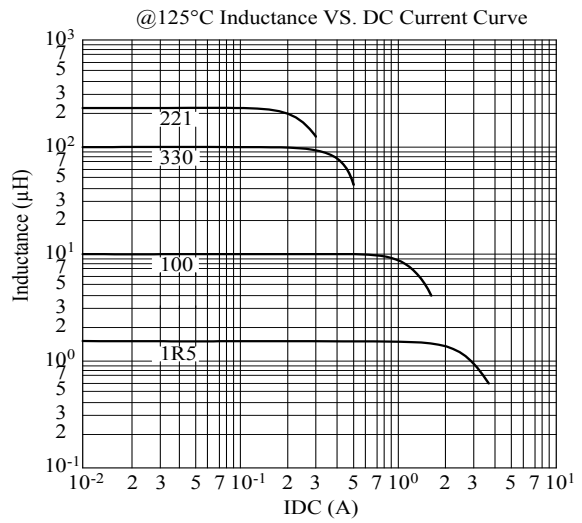
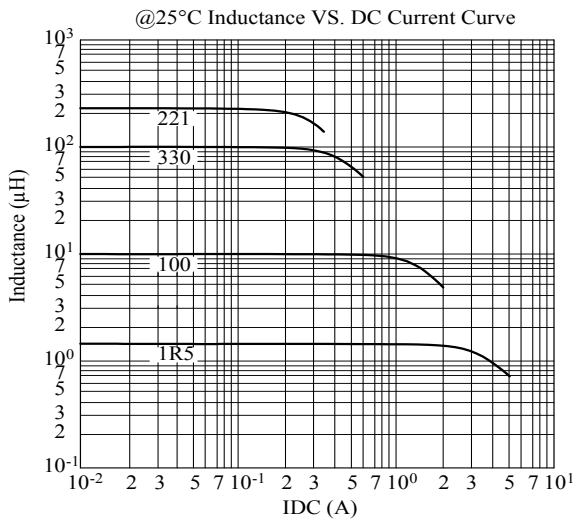


AQS4828 Series

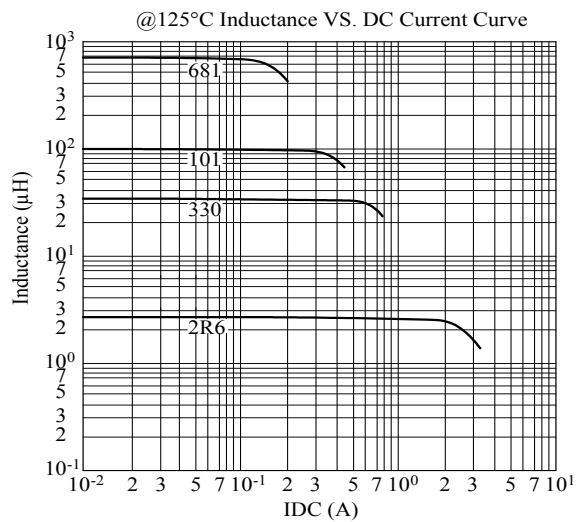
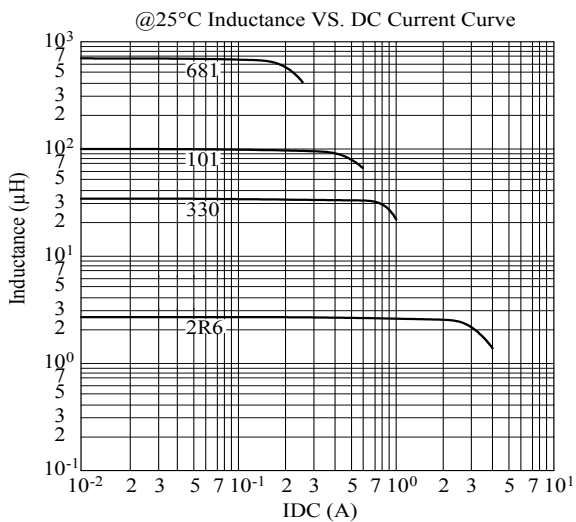


3818 / 4818 / 4828 / 5818 / 5828 / 6822

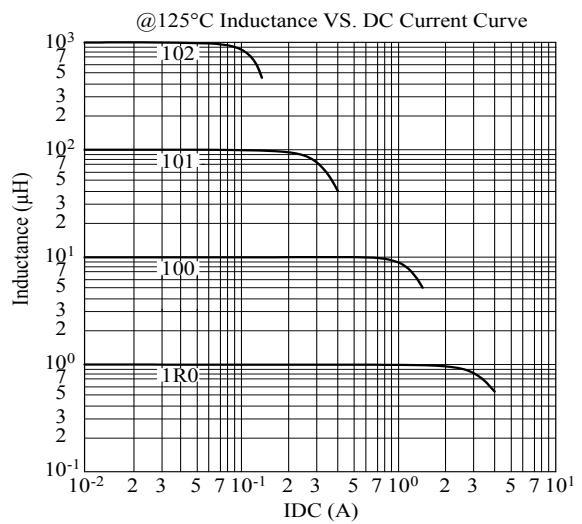
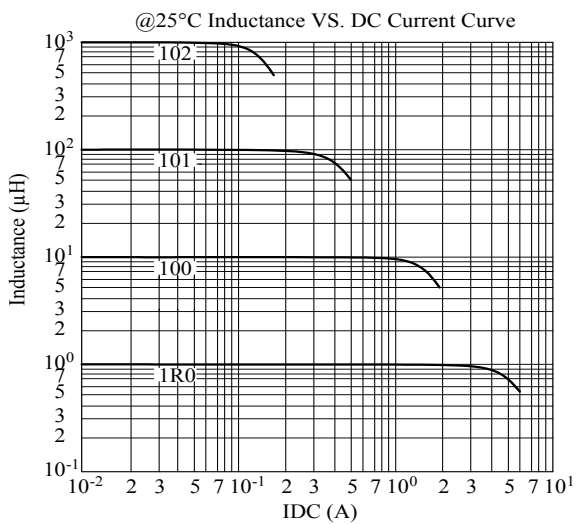
AQS5818 Series



AQS5828 Series

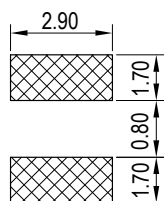


AQS6822 Series

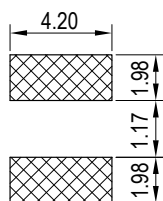


3818 / 4818 / 4828 / 5818 / 5828 / 6822

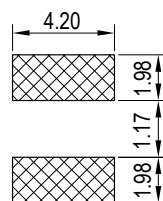
PCB Pattern



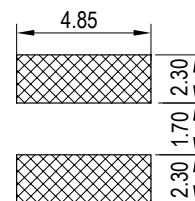
AQS3818



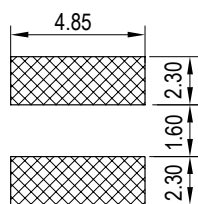
AQS4818



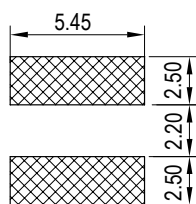
AQS4828



AQS5818



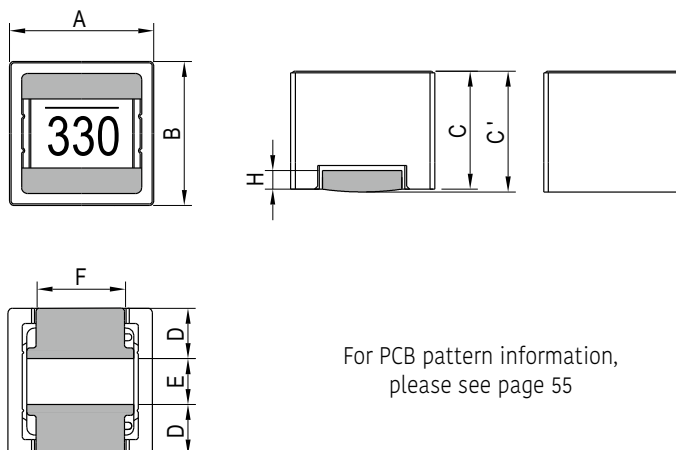
AQS5828



AQS6822

3228 / 3828 / 5228 / 6828 / 6838

Standard



For PCB pattern information,
please see page 55

Unit: mm

Series	A	B	C	C'	D	E	F	H
MQS3228	3.30±0.20	3.30±0.20	2.80±0.20	3.20 max.	1.10±0.20	1.00±0.20	1.50±0.20	0.30 min.
MQS3828	3.80±0.20	3.80±0.20	2.80±0.20	3.20 max.	1.30±0.20	1.20±0.20	1.90±0.20	0.50±0.20
MQS5228	5.20±0.20	5.20±0.20	2.80±0.20	3.20 max.	1.60±0.20	1.90±0.20	3.30±0.20	0.30 min.
MQS6828	6.80±0.30	6.80±0.30	2.80±0.20	3.20 max.	2.10±0.30	2.60±0.30	4.25±0.20	0.30 min.
MQS6838	6.80±0.30	6.80±0.30	3.80±0.20	4.20 max.	2.10±0.30	2.60±0.30	4.35±0.20	0.30 min.

Features

- Magnetic shielding allows high-density mounting
- Low profile
- Low RDC
- High current handling capability
- AEC-Q200 Grade 1: MQS3228 / MQS5228 / MQS6828
- Operating temp: -40°C ~ +150°C (including self-temperature rise)
- AEC-Q200 Grade 0: MQS3828 / MQS6838
- MQS3828 Operating temp: -55°C ~ +150°C (including self-temperature rise)
- MQS6838 Operating temp: -40°C ~ +150°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



3228 / 3828 / 5228 / 6828 / 6838

MQS3228 Series

DWG. No.	Inductance (μ H)	SRF (MHz) typ.	RDC (Ω)		Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
			typ.	max.			
MQS3228100YLB-□□□	10.0 $\pm$ 30%	30.0	0.180	0.200	0.90	0.80	1.10
MQS3228150YLB-□□□	15.0 $\pm$ 30%	25.0	0.240	0.290	0.75	0.70	0.90
MQS3228220YLB-□□□	22.0 $\pm$ 30%	20.0	0.300	0.335	0.62	0.60	0.80
MQS3228330YLB-□□□	33.0 $\pm$ 30%	15.0	0.450	0.560	0.50	0.52	0.68
MQS3228470YLB-□□□	47.0 $\pm$ 30%	10.0	0.760	0.950	0.42	0.40	0.52
MQS3228680YLB-□□□	68.0 $\pm$ 30%	8.0	1.400	1.750	0.35	0.30	0.38
MQS3228101YLB-□□□	100.0 $\pm$ 30%	6.0	2.000	2.550	0.29	0.24	0.30

MQS3828 Series

DWG. No.	Inductance (μ H)	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
			typ.	max.			
MQS38283R3YLB-□□□	3.3 $\pm$ 30%	64.0	37.0	48.0	1.70	2.00	2.50
MQS38284R7YLB-□□□	4.7 $\pm$ 30%	55.0	51.0	66.0	1.48	1.80	2.40
MQS38286R8YLB-□□□	6.8 $\pm$ 30%	36.0	86.0	110.0	1.16	1.14	1.60
MQS3828100MLB-□□□	10.0 $\pm$ 20%	27.0	120.0	154.0	0.95	1.04	1.50
MQS3828150MLB-□□□	15.0 $\pm$ 20%	23.0	160.0	200.0	0.80	0.95	1.30
MQS3828220MLB-□□□	22.0 $\pm$ 20%	20.0	265.0	330.0	0.68	0.76	1.00
MQS3828330MLB-□□□	33.0 $\pm$ 20%	19.0	392.0	490.0	0.54	0.50	0.70
MQS3828470MLB-□□□	47.0 $\pm$ 20%	12.0	475.0	595.0	0.45	0.45	0.65
MQS3828680MLB-□□□	68.0 $\pm$ 20%	9.0	633.0	790.0	0.38	0.36	0.55
MQS3828101MLB-□□□	100.0 $\pm$ 20%	8.0	956.0	1150.0	0.32	0.34	0.48

MQS5228 Series

DWG. No.	Inductance (μ H)	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
			typ.	max.			
MQS52281R2YLB-□□□	1.2 $\pm$ 30%	170.0	14.0	22.0	4.30	3.90	5.20
MQS52282R2YLB-□□□	2.2 $\pm$ 30%	95.0	21.0	27.0	3.10	3.10	4.10
MQS52283R3YLB-□□□	3.3 $\pm$ 30%	70.0	27.0	32.0	2.30	2.80	3.60
MQS52284R7YLB-□□□	4.7 $\pm$ 30%	55.0	35.0	45.0	2.00	2.45	3.20
MQS52286R8YLB-□□□	6.8 $\pm$ 30%	40.0	45.0	56.0	1.80	2.20	2.80
MQS5228100MLB-□□□	10.0 $\pm$ 20%	28.0	69.0	85.0	1.45	1.70	2.30
MQS5228150MLB-□□□	15.0 $\pm$ 20%	23.0	106.0	140.0	1.25	1.40	1.80
MQS5228220MLB-□□□	22.0 $\pm$ 20%	18.0	150.0	193.0	1.00	1.30	1.70
MQS5228330MLB-□□□	33.0 $\pm$ 20%	14.0	204.0	260.0	0.84	1.00	1.30
MQS5228470MLB-□□□	47.0 $\pm$ 20%	12.0	295.0	360.0	0.70	0.84	1.10
MQS5228680MLB-□□□	68.0 $\pm$ 20%	10.0	445.0	550.0	0.57	0.65	0.90
MQS5228101MLB-□□□	100.0 $\pm$ 20%	8.0	650.0	800.0	0.47	0.57	0.70
MQS5228121MLB-□□□	120.0 $\pm$ 20%	6.0	860.0	1100.0	0.43	0.49	0.65
MQS5228151MLB-□□□	150.0 $\pm$ 20%	5.5	1180.0	1470.0	0.39	0.42	0.55
MQS5228181MLB-□□□	180.0 $\pm$ 20%	5.0	1240.0	1550.0	0.35	0.40	0.52
MQS5228221MLB-□□□	220.0 $\pm$ 20%	4.5	1650.0	2000.0	0.32	0.35	0.46
MQS5228271MLB-□□□	270.0 $\pm$ 20%	4.0	2100.0	2500.0	0.29	0.32	0.42
MQS5228331MLB-□□□	330.0 $\pm$ 20%	3.7	2600.0	3200.0	0.26	0.27	0.36
MQS5228391MLB-□□□	390.0 $\pm$ 20%	3.3	2800.0	3400.0	0.24	0.26	0.35
MQS5228471MLB-□□□	470.0 $\pm$ 20%	3.0	3600.0	4300.0	0.22	0.24	0.31
MQS5228561MLB-□□□	560.0 $\pm$ 20%	2.7	3900.0	4700.0	0.20	0.22	0.28
MQS5228681MLB-□□□	680.0 $\pm$ 20%	2.6	4700.0	5700.0	0.18	0.20	0.26
MQS5228821MLB-□□□	820.0 $\pm$ 20%	2.2	6600.0	7900.0	0.16	0.17	0.22
MQS5228102MLB-□□□	1000.0 $\pm$ 20%	2.1	7200.0	8700.0	0.15	0.16	0.21

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MQS6828 Series

DWG. No.	Inductance (μ H)	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
			typ.	max.			
MQS68282R5YLB-□□□	2.5 $\pm$ 30%	77.0	23.0	30.0	3.40	4.50	4.90
MQS68283R3YLB-□□□	3.3 $\pm$ 30%	63.0	25.0	33.0	3.00	3.30	4.70
MQS68284R3YLB-□□□	4.3 $\pm$ 30%	55.0	33.0	43.0	2.60	2.80	4.00
MQS68285R0YLB-□□□	5.0 $\pm$ 30%	48.0	38.0	48.0	2.30	2.65	3.80
MQS68286R4YLB-□□□	6.4 $\pm$ 30%	42.0	46.0	60.0	2.10	2.35	3.40
MQS68287R7YLB-□□□	7.7 $\pm$ 30%	37.0	54.0	70.0	1.90	2.20	3.20
MQS6828100MLB-□□□	10.0 $\pm$ 20%	33.0	64.0	84.0	1.75	2.15	2.90
MQS6828150MLB-□□□	15.0 $\pm$ 20%	24.0	113.0	145.0	1.40	1.60	2.20
MQS6828220MLB-□□□	22.0 $\pm$ 20%	20.0	141.0	180.0	1.15	1.50	2.00
MQS6828330MLB-□□□	33.0 $\pm$ 20%	15.0	170.0	205.0	0.92	1.40	1.80
MQS6828470MLB-□□□	47.0 $\pm$ 20%	13.0	240.0	290.0	0.80	1.00	1.40
MQS6828680MLB-□□□	68.0 $\pm$ 20%	10.0	340.0	410.0	0.67	0.90	1.20
MQS6828101MLB-□□□	100.0 $\pm$ 20%	8.0	460.0	555.0	0.55	0.80	1.00
MQS6828151MLB-□□□	150.0 $\pm$ 20%	6.0	740.0	890.0	0.44	0.60	0.80
MQS6828221MLB-□□□	220.0 $\pm$ 20%	5.5	1057.0	1200.0	0.36	0.45	0.60
MQS6828331MLB-□□□	330.0 $\pm$ 20%	4.5	1510.0	1740.0	0.30	0.40	0.55
MQS6828471MLB-□□□	470.0 $\pm$ 20%	3.5	2210.0	2540.0	0.25	0.30	0.45
MQS6828681MLB-□□□	680.0 $\pm$ 20%	3.0	3180.0	3560.0	0.21	0.25	0.35
MQS6828102MLB-□□□	1000.0 $\pm$ 20%	2.5	4070.0	4480.0	0.17	0.20	0.30

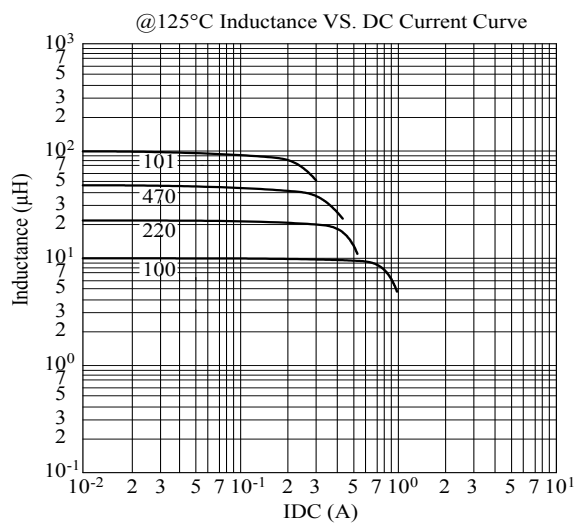
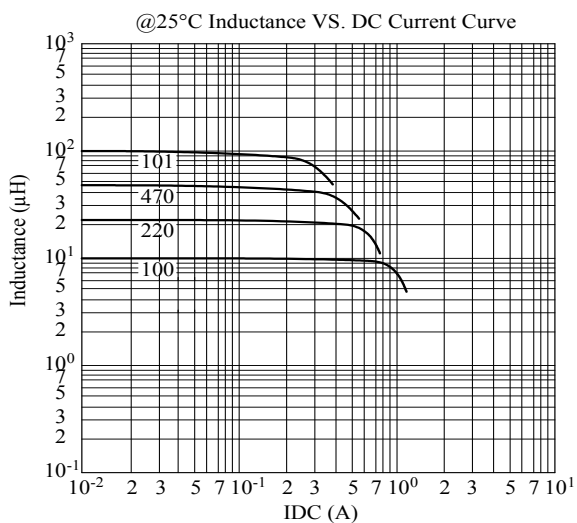
MQS6838 Series

DWG. No.	Inductance (μ H)	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms1 (A) typ.	Irms2 (A) typ.
			typ.	max.			
MQS68381R0YLB-□□□	1.0 $\pm$ 30%	78.0	7.7	15.0	5.80	4.50	6.80
MQS68383R0YLB-□□□	3.0 $\pm$ 30%	54.0	16.9	21.0	3.50	3.30	4.80
MQS68384R7YLB-□□□	5.0 $\pm$ 30%	48.0	22.3	25.0	2.70	3.00	4.50
MQS68387R0YLB-□□□	6.8 $\pm$ 30%	36.0	25.7	34.0	2.20	2.55	3.80
MQS6838100MLB-□□□	10.0 $\pm$ 20%	28.0	35.3	50.0	1.75	2.40	3.50
MQS6838120MLB-□□□	12.0 $\pm$ 20%	26.0	38.6	55.0	1.61	2.25	3.20
MQS6838150MLB-□□□	15.0 $\pm$ 20%	22.0	45.6	60.0	1.51	2.10	3.10
MQS6838180MLB-□□□	17.0 $\pm$ 20%	20.0	54.6	75.0	1.35	1.95	2.90
MQS6838220MLB-□□□	22.0 $\pm$ 20%	18.0	70.8	87.0	1.25	1.80	2.80
MQS6838270MLB-□□□	27.0 $\pm$ 20%	16.0	84.4	105.0	1.20	1.60	2.35
MQS6838330MLB-□□□	33.0 $\pm$ 20%	14.0	106.0	120.0	1.05	1.35	2.00
MQS6838390MLB-□□□	39.0 $\pm$ 20%	13.0	115.0	135.0	0.94	1.25	1.85
MQS6838470MLB-□□□	47.0 $\pm$ 20%	11.0	134.0	160.0	0.85	1.15	1.70
MQS6838560MLB-□□□	56.0 $\pm$ 20%	10.0	160.0	190.0	0.77	1.05	1.55
MQS6838680MLB-□□□	68.0 $\pm$ 20%	9.0	183.0	240.0	0.70	0.95	1.40
MQS6838820MLB-□□□	82.0 $\pm$ 20%	8.0	229.0	290.0	0.65	0.85	1.30
MQS6838101MLB-□□□	100.0 $\pm$ 20%	7.0	289.0	345.0	0.60	0.75	1.10

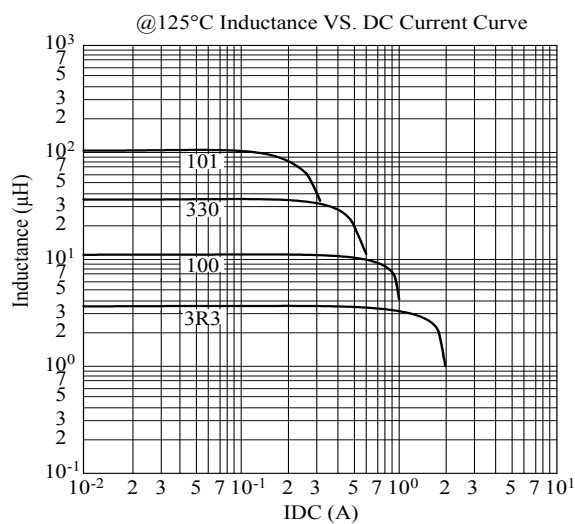
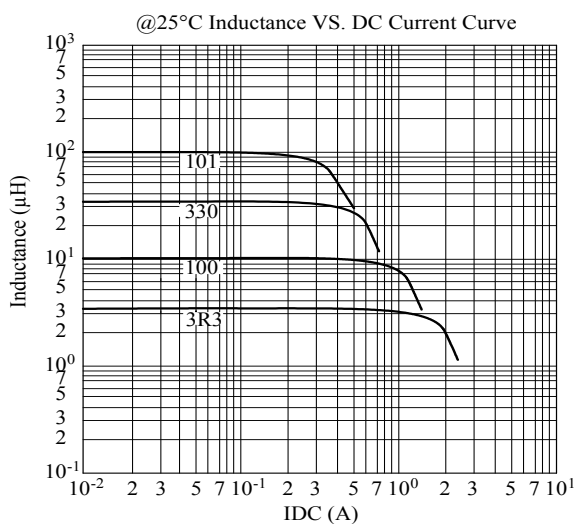
1. Electrical specifications at 25°C
2. Inductance Test condition: 100kHz /0.1V
3. Isat base on $\Delta L/L0A=35\%$ typ.
4. Irms1 base on Temp. rise 20°C typ.
5. Irms2 base on Temp. rise 40°C typ.

3228 / 3828 / 5228 / 6828 / 6838

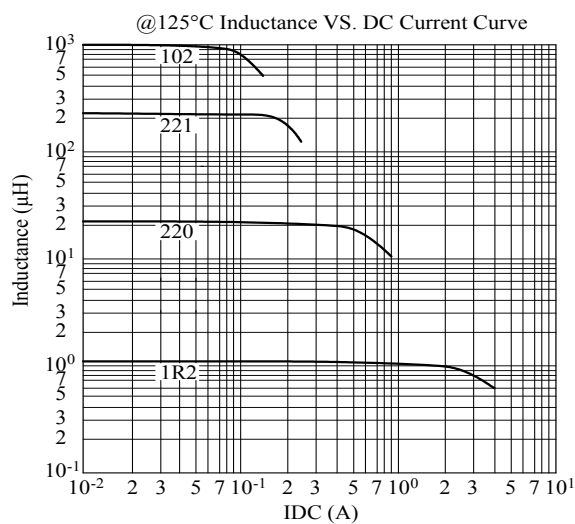
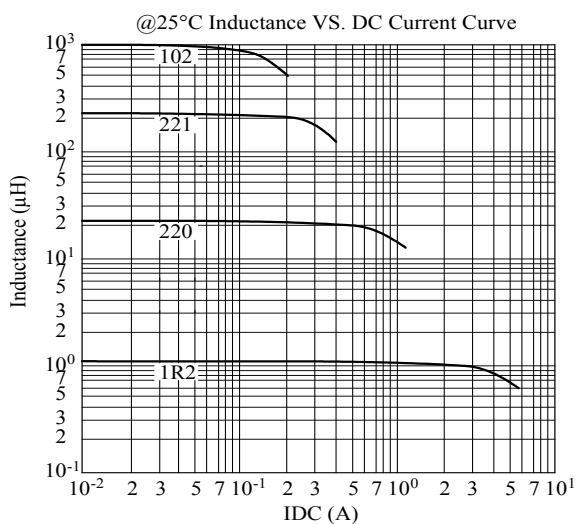
MQS3228 Series



MQS3828 Series

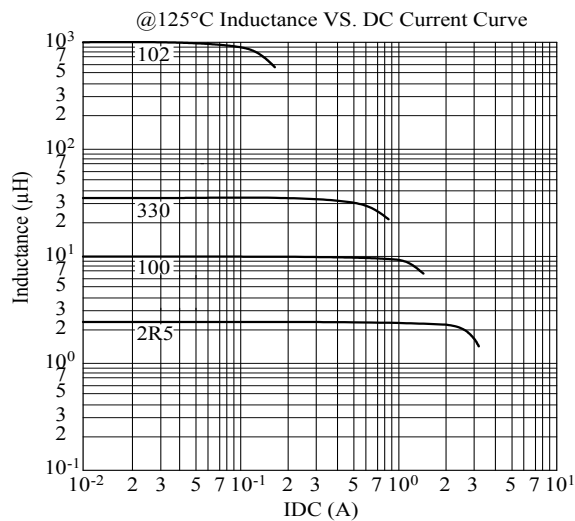
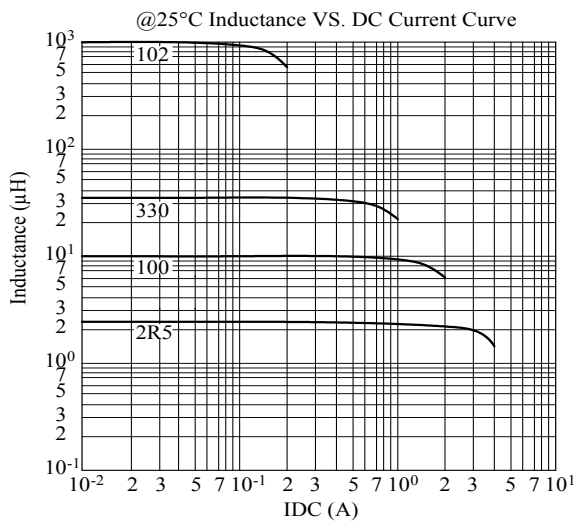


MQS5228 Series

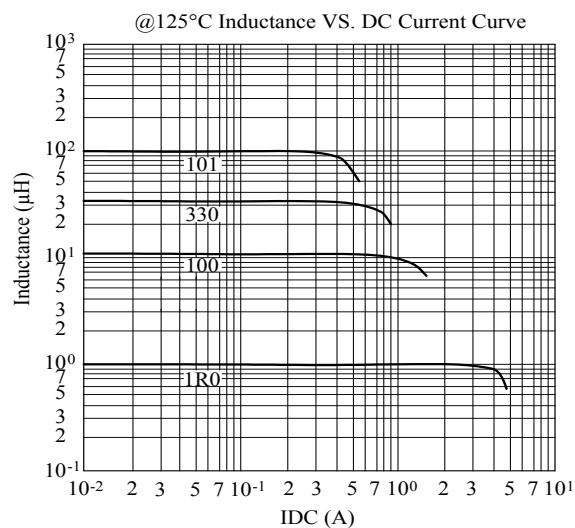
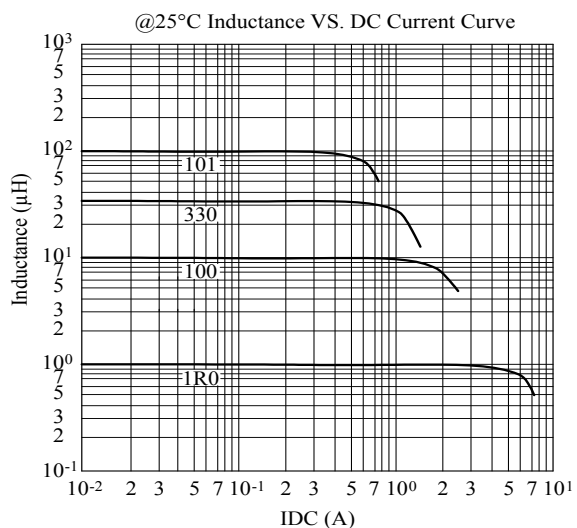


3228 / 3828 / 5228 / 6828 / 6838

MQS6828 Series

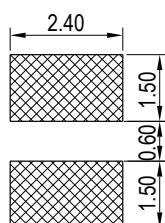


MQS6838 Series

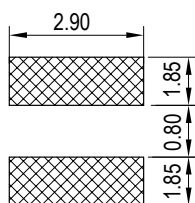


3228 / 3828 / 5228 / 6828 / 6838

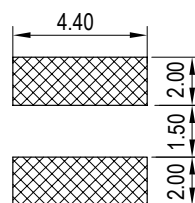
PCB Pattern



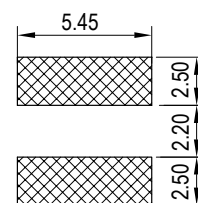
MQS3228



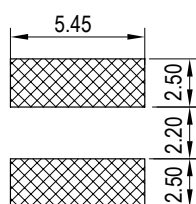
MQS3828



MQS5228



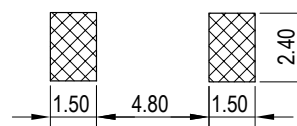
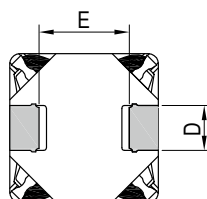
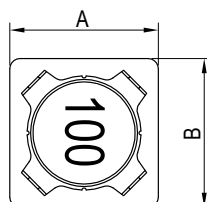
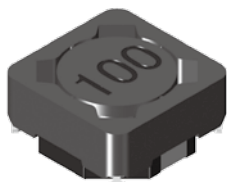
MQS6828



MQS6838

0703 / 0704

Standard



(PCB Pattern)

Unit: mm

Series	A	B	C	D	E
MBS0703	7.30±0.20	7.30±0.20	3.50±0.20	2.00±0.20	4.60±0.20
MBS0704	7.30±0.20	7.30±0.20	4.50±0.20	2.00±0.20	4.60±0.20

Features

- Low RDC
- High current handling capability
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



0703 / 0704

MBS0703 Series

DWG. No.	Inductance (μ H)	Q typ.	Test Freq. (Hz)		SRF (MHz) typ.	RDC (Ω) max.	Isat (A)	I _{rms} (A)
			L (k)	Q (M)				
MBS0703100MSB-□□□	10.0 $\pm$ 20%	32	1	2.52	32.0	0.072	1.85	2.10
MBS0703120MSB-□□□	12.0 $\pm$ 20%	22	1	2.52	26.0	0.085	1.60	1.90
MBS0703150MSB-□□□	15.0 $\pm$ 20%	20	1	2.52	23.0	0.105	1.52	1.60
MBS0703180MSB-□□□	18.0 $\pm$ 20%	26	1	2.52	21.0	0.125	1.40	1.40
MBS0703220MSB-□□□	22.0 $\pm$ 20%	20	1	2.52	18.0	0.160	1.28	1.20
MBS0703270MSB-□□□	27.0 $\pm$ 20%	20	1	2.52	17.0	0.185	1.15	1.10
MBS0703330MSB-□□□	33.0 $\pm$ 20%	23	1	2.52	14.5	0.220	1.04	1.00
MBS0703390MSB-□□□	39.0 $\pm$ 20%	27	1	2.52	14.0	0.250	0.96	0.95
MBS0703470MSB-□□□	47.0 $\pm$ 20%	30	1	2.52	13.0	0.320	0.88	0.85
MBS0703560MSB-□□□	56.0 $\pm$ 20%	26	1	2.52	11.0	0.350	0.80	0.78
MBS0703680MSB-□□□	68.0 $\pm$ 20%	22	1	2.52	11.0	0.400	0.74	0.72
MBS0703820MSB-□□□	82.0 $\pm$ 20%	22	1	2.52	9.0	0.480	0.65	0.63
MBS0703101MSB-□□□	100.0 $\pm$ 20%	33	1	0.796	8.5	0.630	0.60	0.54
MBS0703121MSB-□□□	120.0 $\pm$ 20%	32	1	0.796	8.0	0.720	0.55	0.53
MBS0703151MSB-□□□	150.0 $\pm$ 20%	36	1	0.796	6.5	0.930	0.48	0.47
MBS0703181MSB-□□□	180.0 $\pm$ 20%	39	1	0.796	6.0	1.150	0.45	0.43
MBS0703221MSB-□□□	220.0 $\pm$ 20%	40	1	0.796	5.5	1.320	0.42	0.40
MBS0703271MSB-□□□	270.0 $\pm$ 20%	40	1	0.796	5.0	1.700	0.38	0.37
MBS0703331MSB-□□□	330.0 $\pm$ 20%	45	1	0.796	4.5	2.000	0.33	0.33
MBS0703391MSB-□□□	390.0 $\pm$ 20%	45	1	0.796	4.2	2.300	0.30	0.30
MBS0703471MSB-□□□	470.0 $\pm$ 20%	39	1	0.796	4.0	2.800	0.27	0.26
MBS0703561MSB-□□□	560.0 $\pm$ 20%	47	1	0.796	3.5	3.500	0.25	0.23
MBS0703681MSB-□□□	680.0 $\pm$ 20%	40	1	0.796	3.0	4.000	0.22	0.21
MBS0703821MSB-□□□	820.0 $\pm$ 20%	48	1	0.796	2.8	5.200	0.21	0.19
MBS0703102MSB-□□□	1000.0 $\pm$ 20%	55	1	0.252	2.0	5.800	0.18	0.17

0703 / 0704

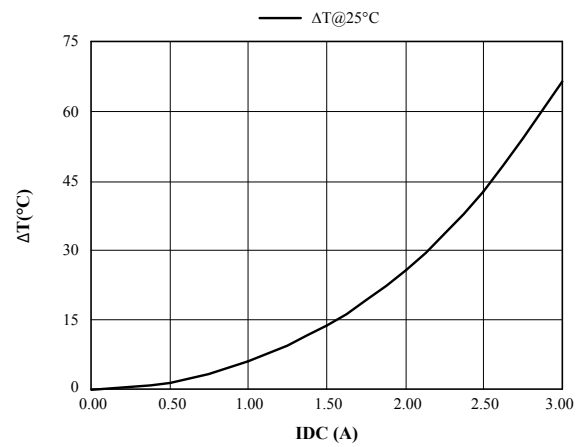
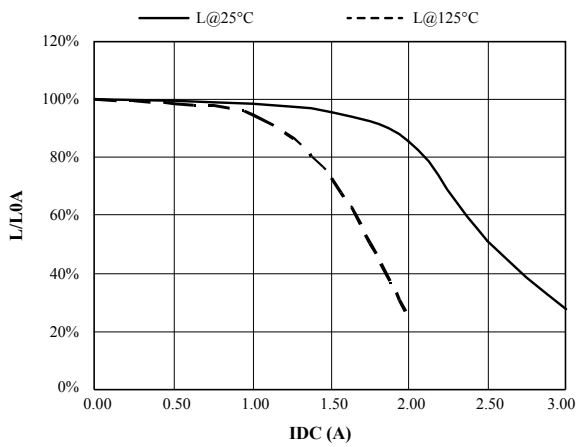
MBS0704 Series

DWG. No.	Inductance (μ H)	Q typ.	Test Freq. (Hz)		SRF (MHz) typ.	RDC (Ω) max.	Isat (A)	Irms (A)
			L (k)	Q (M)				
MBS0704100MSB-□□□	10.0 $\pm$ 20%	35	1	2.52	28.0	0.052	2.50	2.10
MBS0704120MSB-□□□	12.0 $\pm$ 20%	32	1	2.52	22.0	0.062	2.30	2.00
MBS0704150MSB-□□□	15.0 $\pm$ 20%	32	1	2.52	19.0	0.075	2.10	1.90
MBS0704180MSB-□□□	18.0 $\pm$ 20%	30	1	2.52	18.0	0.090	1.95	1.80
MBS0704220MSB-□□□	22.0 $\pm$ 20%	30	1	2.52	15.0	0.096	1.75	1.65
MBS0704270MSB-□□□	27.0 $\pm$ 20%	30	1	2.52	13.0	0.130	1.62	1.45
MBS0704330MSB-□□□	33.0 $\pm$ 20%	27	1	2.52	11.0	0.150	1.45	1.35
MBS0704390MSB-□□□	39.0 $\pm$ 20%	27	1	2.52	11.0	0.190	1.30	1.17
MBS0704470MSB-□□□	47.0 $\pm$ 20%	25	1	2.52	10.0	0.210	1.20	1.05
MBS0704560MSB-□□□	56.0 $\pm$ 20%	23	1	2.52	9.0	0.240	1.10	0.95
MBS0704680MSB-□□□	68.0 $\pm$ 20%	22	1	2.52	8.0	0.300	0.96	0.86
MBS0704820MSB-□□□	82.0 $\pm$ 20%	24	1	2.52	7.0	0.400	0.90	0.78
MBS0704101MSB-□□□	100.0 $\pm$ 20%	28	1	0.796	7.0	0.450	0.78	0.70
MBS0704121MSB-□□□	120.0 $\pm$ 20%	35	1	0.796	6.0	0.550	0.70	0.60
MBS0704151MSB-□□□	150.0 $\pm$ 20%	39	1	0.796	5.5	0.760	0.58	0.48
MBS0704181MSB-□□□	180.0 $\pm$ 20%	35	1	0.796	4.7	0.820	0.54	0.46
MBS0704221MSB-□□□	220.0 $\pm$ 20%	33	1	0.796	4.3	0.950	0.50	0.42
MBS0704271MSB-□□□	270.0 $\pm$ 20%	38	1	0.796	4.0	1.200	0.46	0.38
MBS0704331MSB-□□□	330.0 $\pm$ 20%	40	1	0.796	3.5	1.500	0.40	0.34
MBS0704391MSB-□□□	390.0 $\pm$ 20%	40	1	0.796	3.0	1.850	0.36	0.32
MBS0704471MSB-□□□	470.0 $\pm$ 20%	39	1	0.796	2.8	2.200	0.34	0.29
MBS0704561MSB-□□□	560.0 $\pm$ 20%	43	1	0.796	2.7	2.600	0.30	0.26
MBS0704681MSB-□□□	680.0 $\pm$ 20%	39	1	0.796	2.5	2.800	0.28	0.24
MBS0704821MSB-□□□	820.0 $\pm$ 20%	40	1	0.796	2.1	3.500	0.26	0.22
MBS0704102MSB-□□□	1000.0 $\pm$ 20%	62	1	0.252	2.0	4.100	0.24	0.20

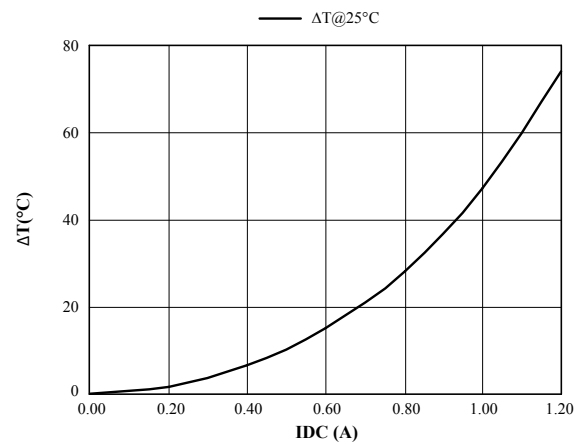
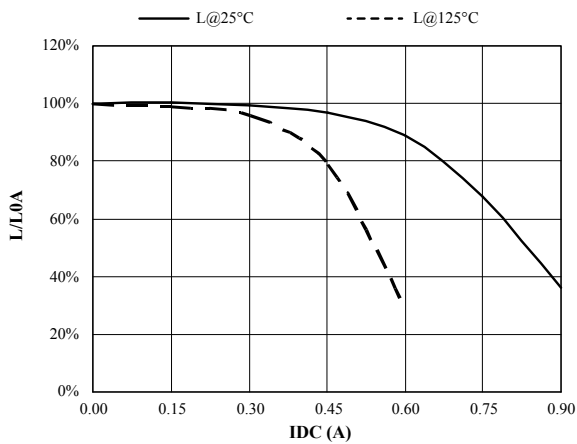
1. Electrical specifications at 25°C
2. Inductance Test Freq: 1kHz /1V
3. Isat base on $\Delta L/L_{OA}=25\%$ max.
4. Irms base on Temp. rise 40°C max.

0703 / 0704

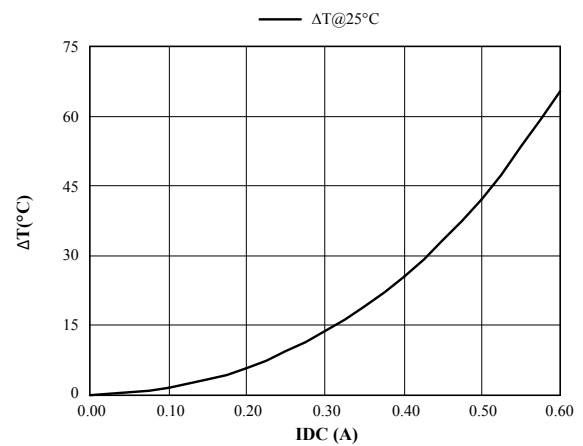
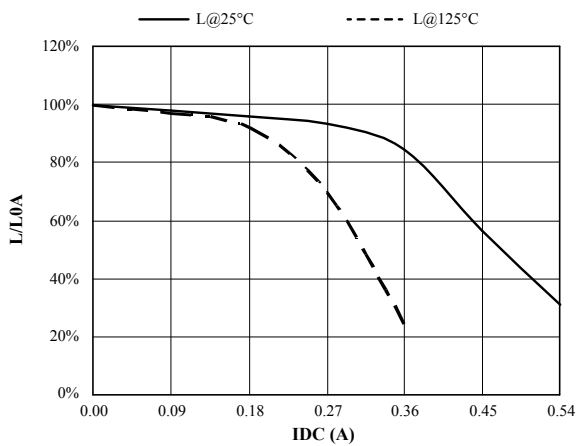
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MBS0703101MSB

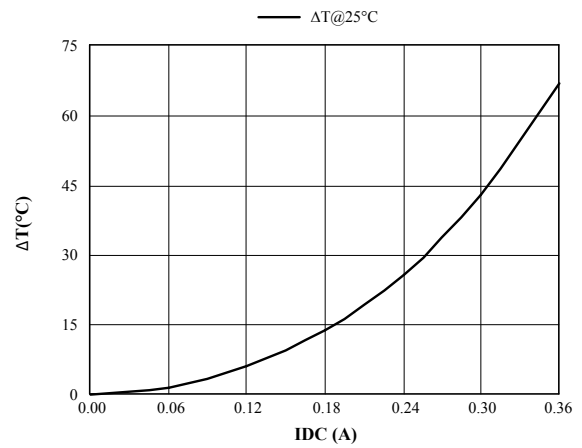
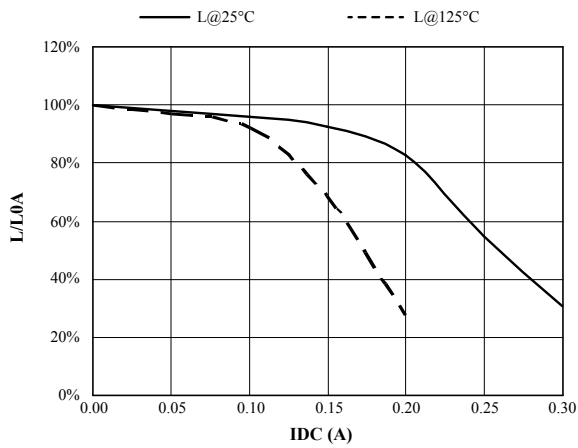


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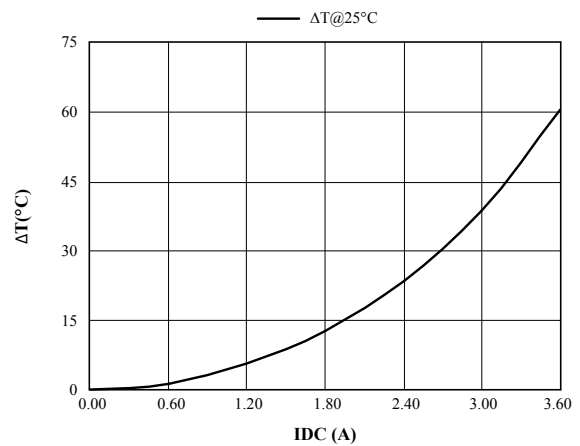
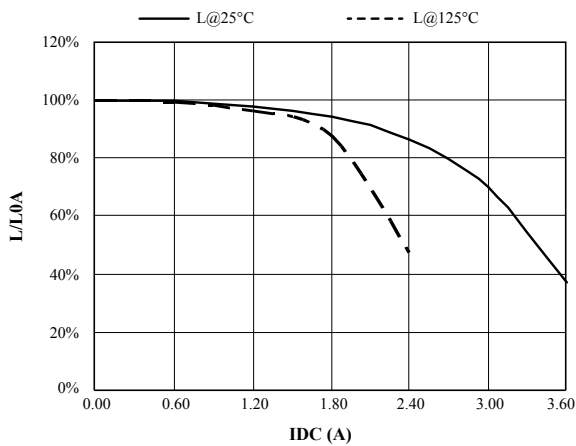


0703 / 0704

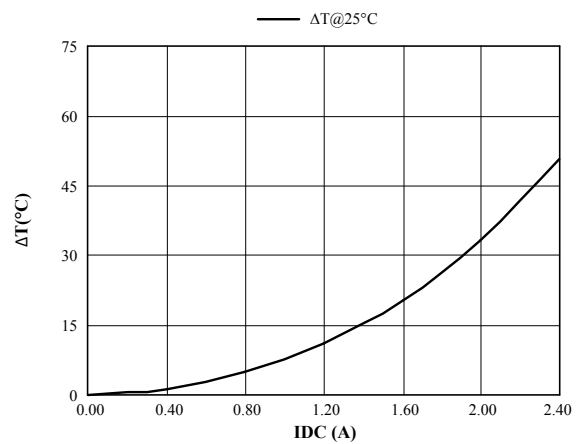
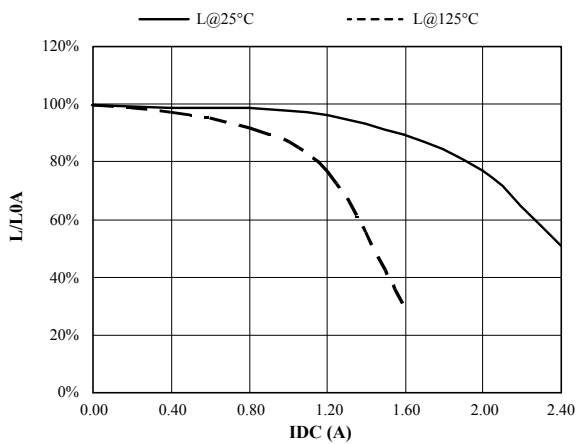
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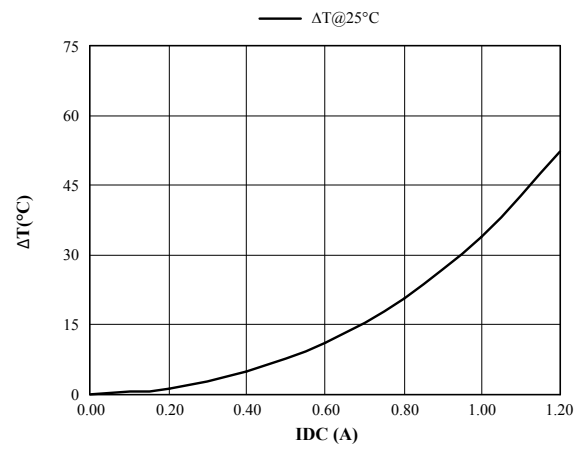
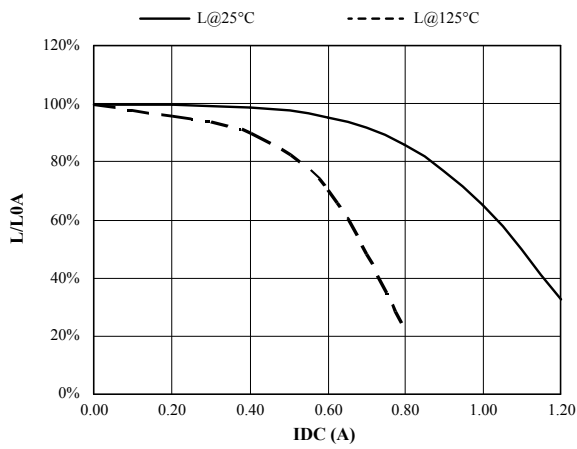


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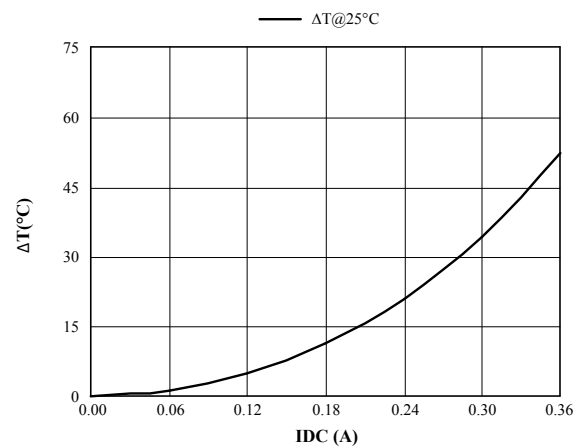
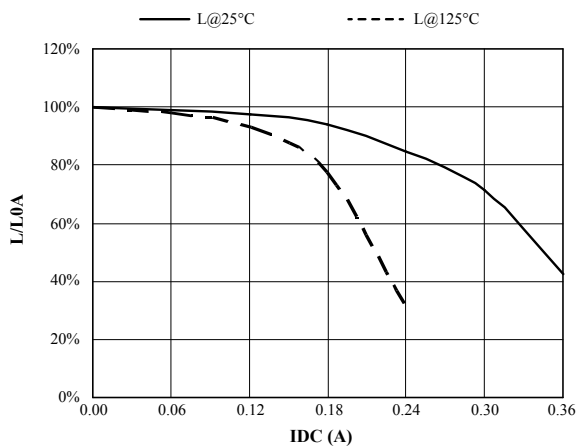


0703 / 0704

MBS0704101MSB

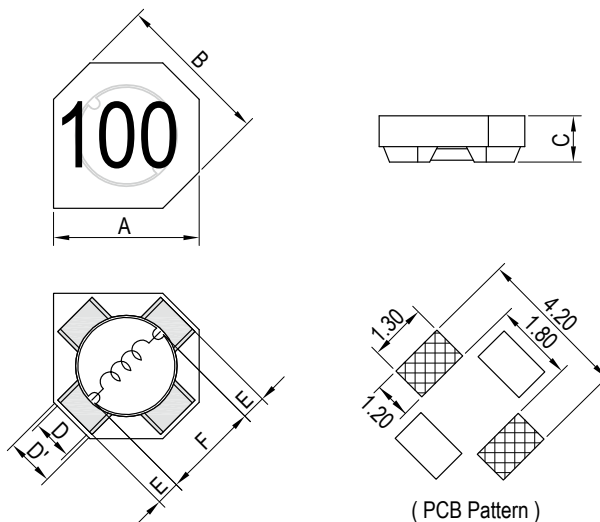


MBS0704102MSB



3028

Standard



Unit: mm

Series	A	B	C	D	D'	E	F
ASU3028	3.30±0.20	3.50±0.20	2.80±0.20	1.10 typ.	1.30±0.30	0.50 typ.	2.30 typ.

Features

- Magnetic shielding allows high-density mounting
- Low profile
- Low RDC
- High current handling capability
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

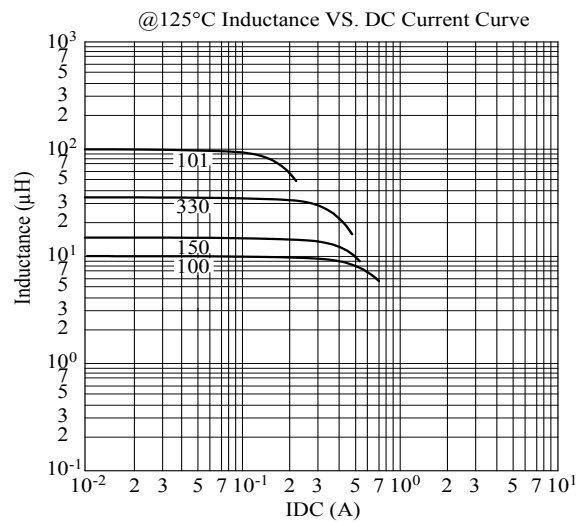
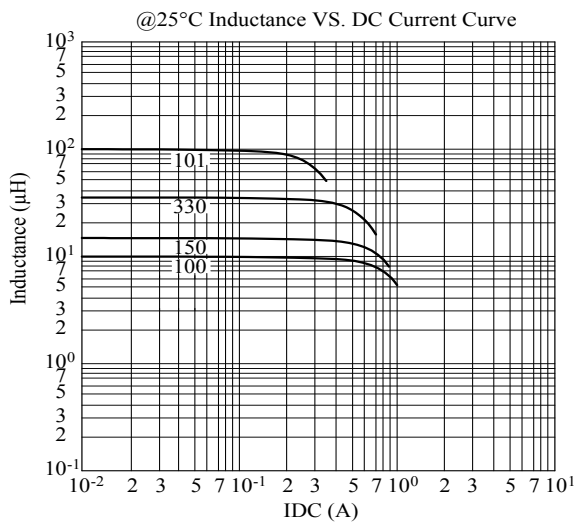
- LED Lighting
- HVAC
- Infotainment
- BCM



ASU3028 Series

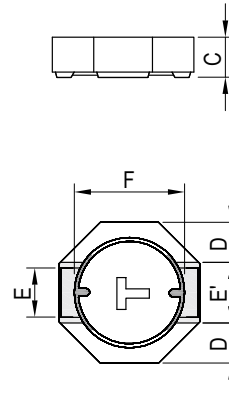
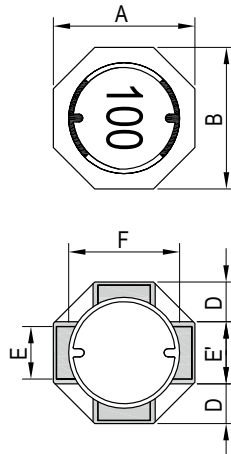
DWG. No.	Inductance (μH)	Q ref.	Test Freq. (Hz)		RDC (mΩ)		SRF (MHz) typ.	I _{rms} (mA) typ.	I _{sat} (mA) typ.
			L	Q	typ.	max.			
ASU3028100YL□-□□□	10.0±30%	20.0	100k	2.52M	160	200	35	720	860
ASU3028150YL□-□□□	15.0±30%	18.0	100k	2.52M	230	290	25	660	720
ASU3028220YL□-□□□	22.0±30%	18.0	100k	2.52M	270	335	15	600	620
ASU3028330YL□-□□□	33.0±30%	20.0	100k	2.52M	450	560	10	470	480
ASU3028470YL□-□□□	47.0±30%	20.0	100k	2.52M	815	1000	8	320	380

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 0.1V
3. I_{sat} base on ΔL / L0A=35% typ.
4. I_{rms} base on Temp. rise 40°C typ.

ASU3028 Series


5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

Standard



ASU8028 / ASU1028
ASU1038 / ASU1048

For PCB pattern information,
please see page 71

Unit: mm

Series	A	B	C	D	E	E'	F
ASU5028	5.20±0.20	5.20±0.20	2.80±0.20	1.40 typ.	1.80 typ.	2.40±0.40	3.90 typ.
ASU6025	6.20±0.30	6.50±0.30	2.50±0.30	2.00 typ.	2.20 typ.	2.60±0.50	4.90 typ.
ASU8028	8.00±0.30	8.00±0.30	2.80±0.30	2.20 typ.	2.80 typ.	3.70±0.50	6.00 typ.
ASU8045	8.00±0.30	8.00±0.30	4.50±0.30	2.20 typ.	3.20 typ.	3.70±0.50	6.40 typ.
ASU1028	10.00±0.30	10.00±0.30	2.80±0.30	2.50 typ.	3.20 typ.	5.00±0.50	7.40 typ.
ASU1038	10.00±0.30	10.00±0.30	3.80±0.30	2.50 typ.	3.20 typ.	5.00±0.50	7.40 typ.
ASU1048	10.00±0.30	10.00±0.30	4.80±0.30	2.50 typ.	3.20 typ.	5.00±0.50	7.40 typ.

Features

- Magnetic shielding allows high-density mounting
- Low profile
- Low RDC
- High current handling capability
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU5028 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		RDC (m Ω)		SRF (MHz) typ.	I _{rms} (mA) typ.	I _{sat} (mA) typ.
			L	Q	typ.	max.			
ASU50281R2YLB-□□□	1.2 $\pm$ 30%	10	100k	7.96M	16.8	22.0	200	3500	3400
ASU50282R2YLB-□□□	2.2 $\pm$ 30%	10	100k	7.96M	21.0	27.0	130	3200	2500
ASU50283R3YLB-□□□	3.3 $\pm$ 30%	10	100k	7.96M	24.0	32.0	90	2800	2100
ASU50284R7YLB-□□□	4.7 $\pm$ 30%	9	100k	7.96M	32.0	45.0	50	2200	1850
ASU50286R8YLB-□□□	6.8 $\pm$ 30%	10	100k	7.96M	42.0	56.0	55	2000	1550
ASU5028100YLB-□□□	10.0 $\pm$ 30%	18	100k	2.52M	63.0	85.0	25	1800	1400
ASU5028150YLB-□□□	15.0 $\pm$ 30%	18	100k	2.52M	108.0	140.0	23	1100	1000
ASU5028220YLB-□□□	22.0 $\pm$ 30%	15	100k	2.52M	162.0	210.0	18	950	850
ASU5028330YLB-□□□	33.0 $\pm$ 30%	15	100k	2.52M	203.0	260.0	16	800	680
ASU5028470YLB-□□□	47.0 $\pm$ 30%	13	100k	2.52M	285.0	360.0	13	700	620
ASU5028680YLB-□□□	68.0 $\pm$ 30%	13	100k	2.52M	450.0	550.0	10	560	460
ASU5028101YLB-□□□	100.0 $\pm$ 30%	15	100k	796k	625.0	800.0	8	470	420

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 0.1V
3. I_{sat} base on Δ L/L0A=35% typ.
4. I_{rms} base on Temp. rise 40°C typ.

ASU6025 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		RDC (m Ω)		SRF (MHz) typ.	I _{rms} (mA) typ.	I _{sat} (mA) typ.
			L	Q	typ.	max.			
ASU60251R2YFB-□□□	1.2 $\pm$ 30%	8	100k	7.96M	14.5	19	120	4000	3200
ASU60252R2YFB-□□□	2.2 $\pm$ 30%	8	100k	7.96M	18.5	24	65	3400	2350
ASU60253R3YFB-□□□	3.3 $\pm$ 30%	8	100k	7.96M	21.0	27	50	3200	2000
ASU60254R7YFB-□□□	4.7 $\pm$ 30%	8	100k	7.96M	27.0	35	42	2700	1550
ASU60256R8YFB-□□□	6.8 $\pm$ 30%	8	100k	7.96M	32.0	42	36	2400	1300
ASU60258R2YFB-□□□	8.2 $\pm$ 30%	8	100k	7.96M	40.0	52	30	2200	1250
ASU6025100YFB-□□□	10.0 $\pm$ 30%	12	100k	2.52M	44.0	57	25	2000	1050
ASU6025150YFB-□□□	15.0 $\pm$ 30%	12	100k	2.52M	66.0	86	22	1800	920
ASU6025220YFB-□□□	22.0 $\pm$ 30%	12	100k	2.52M	100.0	130	18	1600	700
ASU6025330YFB-□□□	33.0 $\pm$ 30%	12	100k	2.52M	140.0	180	12	1200	640
ASU6025470YFB-□□□	47.0 $\pm$ 30%	12	100k	2.52M	190.0	250	10	1000	480
ASU6025680YFB-□□□	68.0 $\pm$ 30%	10	100k	2.52M	280.0	365	8	800	400
ASU6025101YFB-□□□	100.0 $\pm$ 30%	24	100k	796k	385.0	500	7	700	350
ASU6025151YFB-□□□	150.0 $\pm$ 30%	30	100k	796k	590.0	770	5	540	280
ASU6025221YFB-□□□	220.0 $\pm$ 30%	20	100k	796k	950.0	1250	4	420	240

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 0.1V
3. I_{sat} base on Δ L/L0A=35% typ.
4. I_{rms} base on Temp. rise 30°C typ.

5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU8028 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq.		RDC (m Ω)		SRF (MHz) typ.	I _{rms} (A)	I _{sat} (A)
			L (kHz)	Q (MHz)	typ.	max.			
ASU80282R5YFB-□□□	2.5 $\pm$ 30%	15	100	7.96	13.6	18.0	65.0	4.50	4.20
ASU80283R3YFB-□□□	3.3 $\pm$ 30%	12	100	7.96	17.5	23.0	60.0	3.60	3.50
ASU80284R7YFB-□□□	4.7 $\pm$ 30%	15	100	7.96	20.0	26.0	50.0	3.70	3.20
ASU80286R8YFB-□□□	6.8 $\pm$ 30%	13	100	7.96	34.0	45.0	40.0	2.80	2.50
ASU80288R2YFB-□□□	8.2 $\pm$ 30%	11	100	7.96	45.0	54.0	38.0	2.60	2.30
ASU8028100YFB-□□□	10.0 $\pm$ 30%	22	100	2.52	45.0	57.0	35.0	2.60	2.20
ASU8028150YFB-□□□	15.0 $\pm$ 30%	20	100	2.52	66.0	85.0	25.0	2.00	1.70
ASU8028220YFB-□□□	22.0 $\pm$ 30%	22	100	2.52	106.0	130.0	20.0	1.60	1.50
ASU8028330YFB-□□□	33.0 $\pm$ 30%	20	100	2.52	147.0	185.0	15.0	1.30	1.10
ASU8028470YFB-□□□	47.0 $\pm$ 30%	14	100	2.52	177.0	230.0	12.0	1.20	1.00
ASU8028680YFB-□□□	68.0 $\pm$ 30%	23	100	2.52	317.0	390.0	9.0	0.85	0.80
ASU8028101YFB-□□□	100.0 $\pm$ 30%	20	100	0.796	390.0	500.0	8.0	0.75	0.70

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 0.1V
3. I_{sat} base on Δ L/L0A=35% typ.
4. I_{rms} base on Temp. rise 40°C typ.

ASU8045 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq.		RDC (m Ω)		SRF (MHz) typ.	I _{rms} (A)	I _{sat} (A)
			L (kHz)	Q (MHz)	typ.	max.			
ASU80453R5YFB-□□□	3.5 $\pm$ 30%	12	100	7.96	18.8	25.0	45.0	5.00	5.00
ASU80454R7YFB-□□□	4.7 $\pm$ 30%	10	100	7.96	22.0	27.5	30.0	4.60	4.40
ASU80456R2YFB-□□□	6.2 $\pm$ 30%	10	100	7.96	28.5	36.0	23.0	4.20	3.80
ASU8045100YFB-□□□	10.0 $\pm$ 30%	16	100	2.52	35.0	48.0	18.0	3.50	3.30
ASU8045220YFB-□□□	22.0 $\pm$ 30%	18	100	2.52	94.0	122.0	12.0	2.25	2.15
ASU8045330YFB-□□□	33.0 $\pm$ 30%	14	100	2.52	118.0	150.0	8.0	2.00	1.80
ASU8045470YFB-□□□	47.0 $\pm$ 30%	12	100	2.52	215.0	270.0	6.0	1.45	1.40
ASU8045680YFB-□□□	68.0 $\pm$ 30%	8	100	2.52	320.0	400.0	4.0	1.25	1.20
ASU8045101YFB-□□□	100.0 $\pm$ 30%	20	100	0.796	400.0	500.0	3.0	1.00	0.92

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 0.1V
3. I_{sat} base on Δ L/L0A=35% typ.
4. I_{rms} base on Temp. rise 40°C typ.

5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU1028 Series

DWG. No.	Inductance (μ H)	Q ref.	SRF (MHz) typ.	RDC (m Ω)		Irms (A) max.	Isat (A) typ.
				typ.	max.		
ASU10281R0YFB-□□□	1.00 $\pm$ 30%	14	100	4.9	6.5	7.00	8.00
ASU10281R5YFB-□□□	1.50 $\pm$ 30%	12	80	7.3	10.0	6.50	6.50
ASU10282R2YFB-□□□	2.20 $\pm$ 30%	12	65	11.0	15.0	5.30	4.80
ASU10283R3YFB-□□□	3.30 $\pm$ 30%	14	55	15.0	20.0	4.60	4.30
ASU10284R7YFB-□□□	4.70 $\pm$ 30%	12	40	16.5	23.0	4.50	3.80
ASU10286R8YFB-□□□	6.80 $\pm$ 30%	12	30	25.0	33.0	3.50	3.00
ASU10288R2YFB-□□□	8.20 $\pm$ 30%	12	28	28.5	37.0	3.30	2.70
ASU1028100YFB-□□□	10.00 $\pm$ 30%	20	25	40.0	53.0	2.80	2.40
ASU1028150YFB-□□□	15.00 $\pm$ 30%	26	22	69.0	90.0	2.00	2.00
ASU1028220YFB-□□□	22.00 $\pm$ 30%	26	16	104.0	135.0	1.60	1.40
ASU1028330YFB-□□□	33.00 $\pm$ 30%	24	12	139.0	180.0	1.25	1.20
ASU1028470YFB-□□□	47.00 $\pm$ 30%	20	11	167.0	230.0	1.30	1.10
ASU1028560YFB-□□□	56.00 $\pm$ 30%	22	10	208.0	270.0	1.10	1.00
ASU1028680YFB-□□□	68.00 $\pm$ 30%	20	9	232.0	300.0	1.00	0.90
ASU1028820YFB-□□□	82.00 $\pm$ 30%	20	8	323.0	420.0	0.90	0.85
ASU1028101YFB-□□□	100.00 $\pm$ 30%	20	7	365.0	470.0	0.85	0.80
ASU1028121YFB-□□□	120.00 $\pm$ 30%	18	6	428.0	560.0	0.70	0.70
ASU1028151YFB-□□□	150.00 $\pm$ 30%	18	5	518.0	680.0	0.65	0.65

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 1V
3. Q Test Freq.: 1R0~8R2--7.96MHz , 100~820--2.52MHz , 101~151--0.796MHz
4. Isat base on ΔL / L0A=35% typ.
5. Irms base on Temp. rise 40°C max.

ASU1038 Series

DWG. No.	Inductance (μ H)	Q ref.	SRF (MHz) typ.	RDC (m Ω)		Irms (A) max.	Isat (A) typ.
				typ.	max.		
ASU10381R5YFB-□□□	1.5 $\pm$ 30%	14	65	5.2	7.5	7.20	7.00
ASU10382R2YFB-□□□	2.2 $\pm$ 30%	12	55	7.7	10.5	6.80	6.50
ASU10383R5YFB-□□□	3.5 $\pm$ 30%	14	35	11.5	15.0	5.50	5.50
ASU10385R0YFB-□□□	5.0 $\pm$ 30%	12	30	14.5	22.0	4.60	4.80
ASU10386R2YFB-□□□	6.2 $\pm$ 30%	12	25	16.5	24.0	4.00	4.20
ASU1038100YFB-□□□	10.0 $\pm$ 30%	24	20	25.0	35.0	3.80	3.60
ASU1038150YFB-□□□	15.0 $\pm$ 30%	24	16	37.0	50.0	2.80	2.70
ASU1038220YFB-□□□	22.0 $\pm$ 30%	20	12	55.8	75.0	2.20	2.30
ASU1038330YFB-□□□	33.0 $\pm$ 30%	22	10	86.0	112.0	1.80	1.80
ASU1038470YFB-□□□	47.0 $\pm$ 30%	22	8	121.0	160.0	1.65	1.60
ASU1038680YFB-□□□	68.0 $\pm$ 30%	24	7	166.0	216.0	1.30	1.30
ASU1038101YFB-□□□	100.0 $\pm$ 30%	24	6	220.0	300.0	1.10	1.10
ASU1038151YFB-□□□	150.0 $\pm$ 30%	20	5	358.0	476.0	0.90	0.80
ASU1038221YFB-□□□	220.0 $\pm$ 30%	22	4	565.0	740.0	0.65	0.65
ASU1038331YFB-□□□	330.0 $\pm$ 30%	20	3	773.0	1000.0	0.55	0.52

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 1V
3. Q Test Freq.: 1R5~6R2--7.96MHz , 100~680--2.52MHz , 101~331--0.796MHz
4. Isat base on ΔL / L0A=35% typ.
5. Irms base on Temp. rise 40°C max.

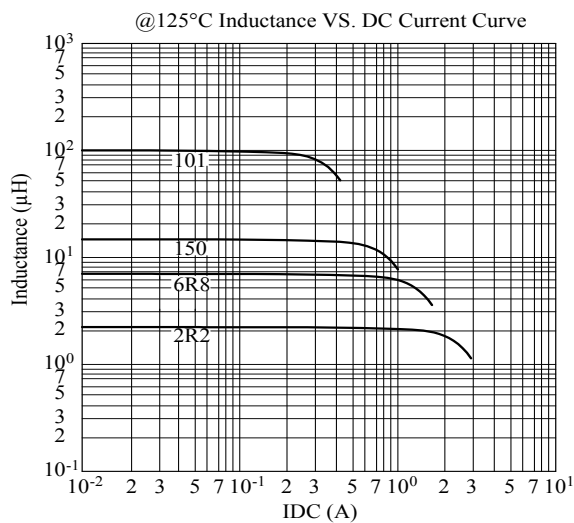
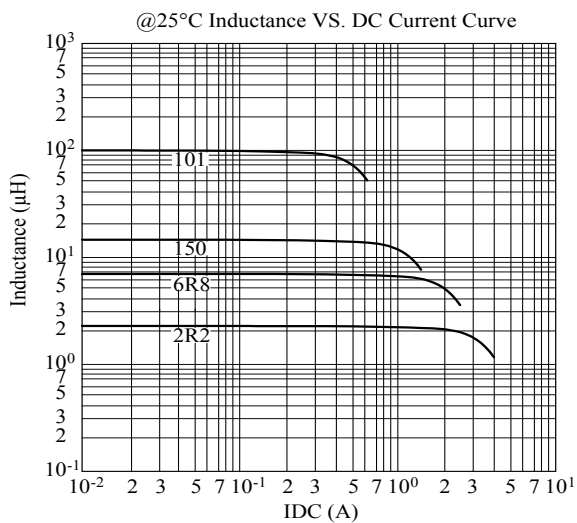
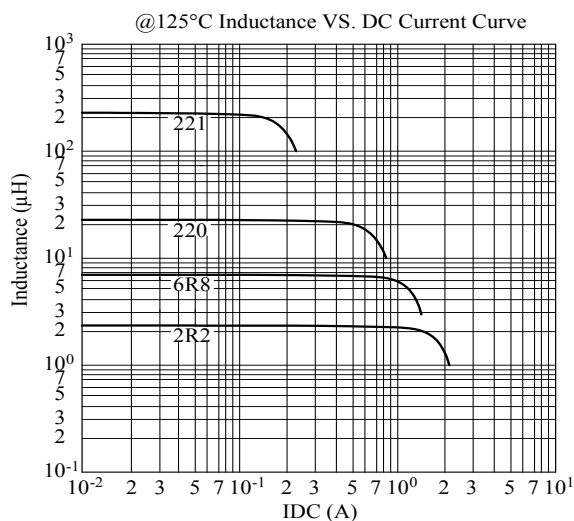
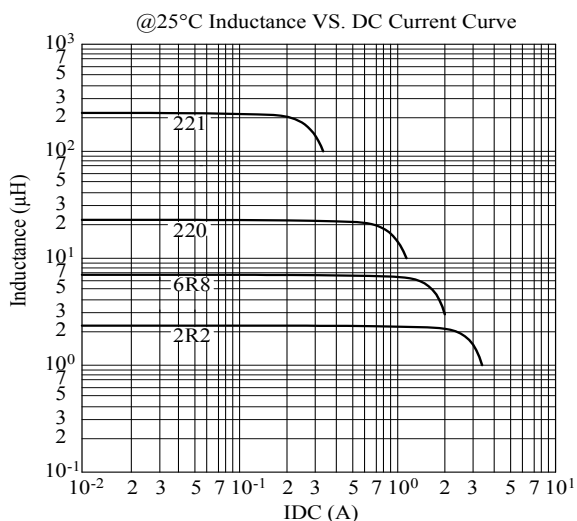
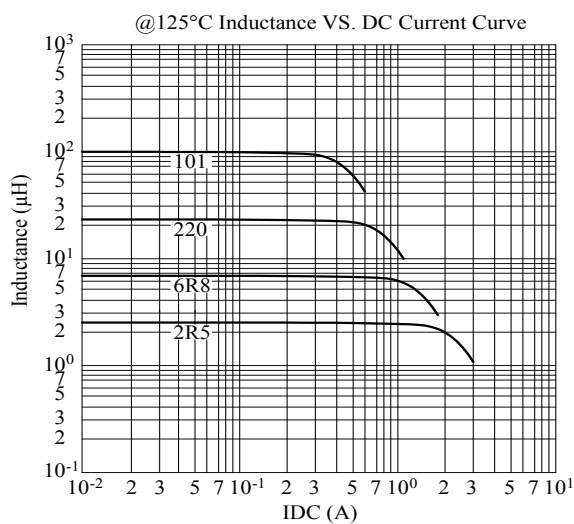
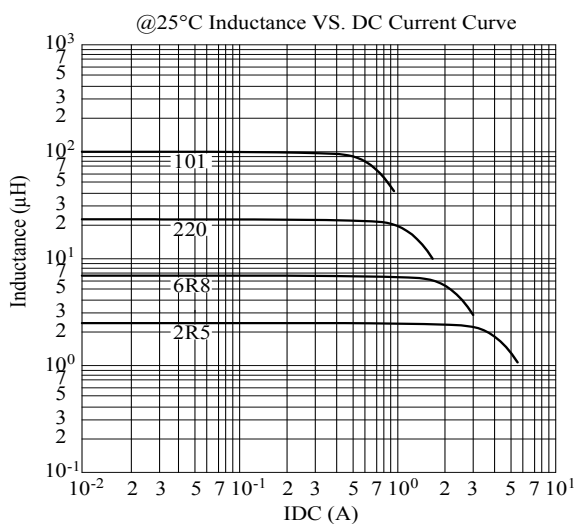
5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU1048 Series

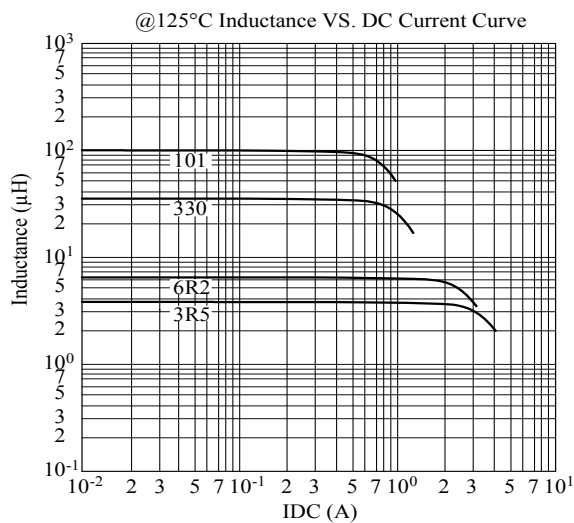
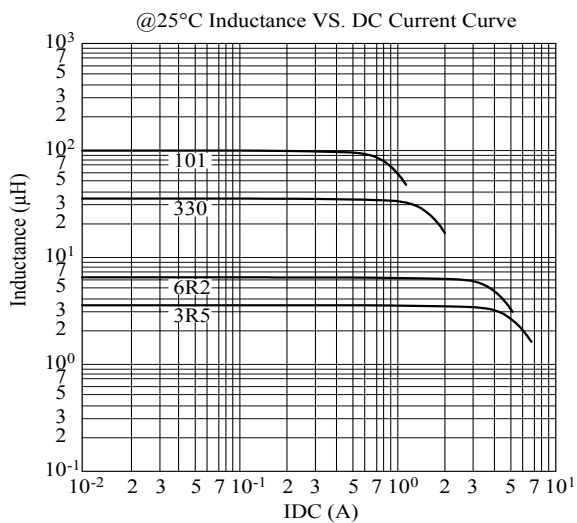
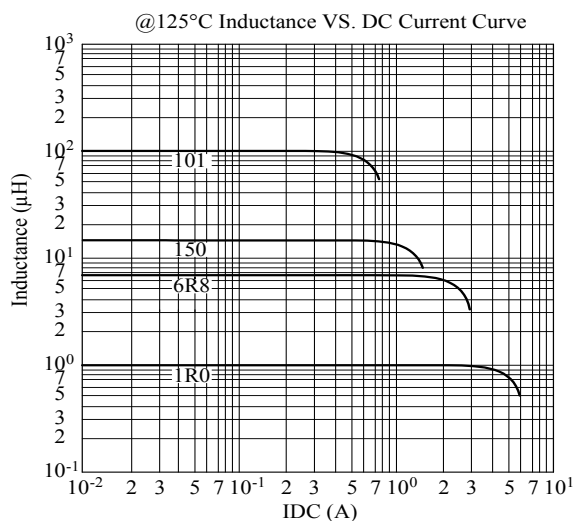
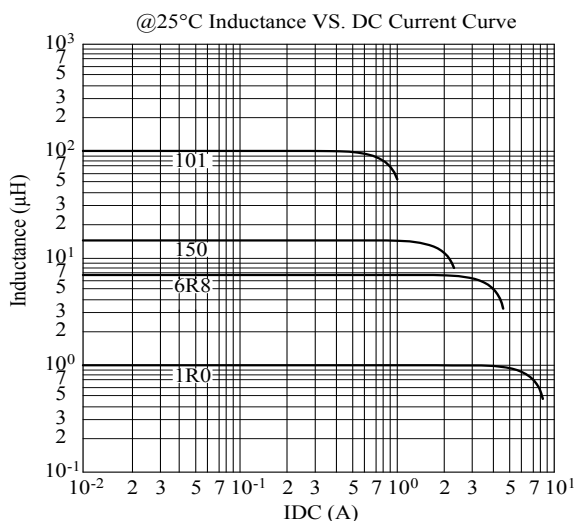
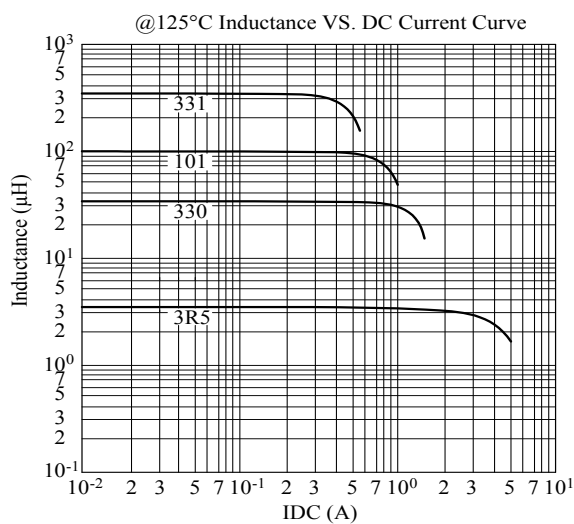
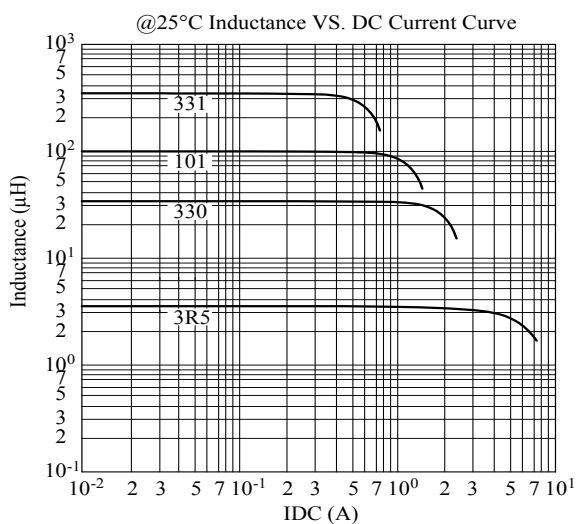
DWG. No.	Inductance (μ H)	Q ref.	SRF (MHz) typ.	RDC (m Ω)		I _{rms} (A) max.	I _{sat} (A) typ.
				typ.	max.		
ASU10481R5YFB-□□□	1.5 $\pm$ 30%	14	70.0	4.3	5.8	7.00	7.20
ASU10482R2YFB-□□□	2.2 $\pm$ 30%	14	55.0	5.3	7.2	6.50	6.30
ASU10483R0YFB-□□□	3.0 $\pm$ 30%	14	40.0	7.2	10.0	6.20	6.00
ASU10484R7YFB-□□□	4.7 $\pm$ 30%	12	30.0	9.5	12.5	5.50	4.75
ASU10486R8YFB-□□□	6.8 $\pm$ 30%	10	20.0	13.6	18.0	4.80	4.10
ASU10488R2YFB-□□□	8.2 $\pm$ 30%	8	18.0	15.0	20.0	4.60	3.80
ASU1048100YFB-□□□	10.0 $\pm$ 30%	26	16.0	18.5	25.0	4.50	3.70
ASU1048150YFB-□□□	15.0 $\pm$ 30%	30	14.0	29.0	40.0	3.20	2.70
ASU1048220YFB-□□□	22.0 $\pm$ 30%	22	12.0	42.0	55.0	2.60	2.00
ASU1048330YFB-□□□	33.0 $\pm$ 30%	24	10.0	63.0	84.0	2.10	1.70
ASU1048470YFB-□□□	47.0 $\pm$ 30%	26	8.0	94.0	120.0	1.70	1.50
ASU1048560YFB-□□□	56.0 $\pm$ 30%	26	7.0	110.0	145.0	1.60	1.40
ASU1048680YFB-□□□	68.0 $\pm$ 30%	24	6.0	127.0	170.0	1.40	1.25
ASU1048820YFB-□□□	82.0 $\pm$ 30%	24	5.5	149.0	200.0	1.30	1.10
ASU1048101YFB-□□□	100.0 $\pm$ 30%	26	5.0	160.0	220.0	1.20	1.00
ASU1048151YFB-□□□	150.0 $\pm$ 30%	24	4.5	235.0	305.0	1.00	0.80
ASU1048221YFB-□□□	220.0 $\pm$ 30%	20	4.0	350.0	455.0	0.80	0.70
ASU1048331YFB-□□□	330.0 $\pm$ 30%	18	3.0	490.0	640.0	0.65	0.52

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 1V
3. Q Test Freq.: 1R5~8R2--7.96MHz , 100~820--2.52MHz , 101~331--0.796MHz
4. I_{sat} base on ΔL / L0A=35% typ.
5. I_{rms} base on Temp. rise 30°C max.

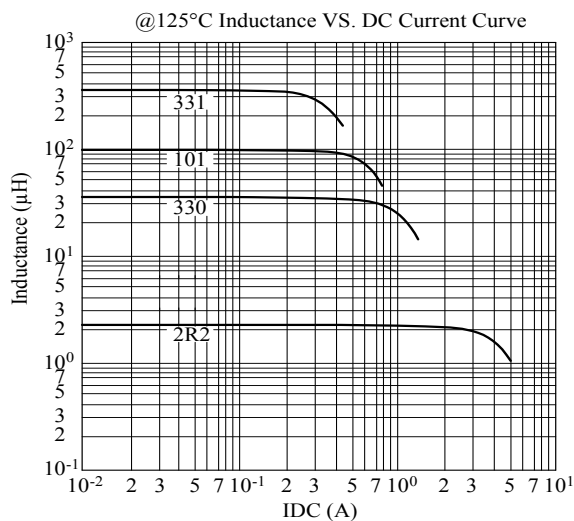
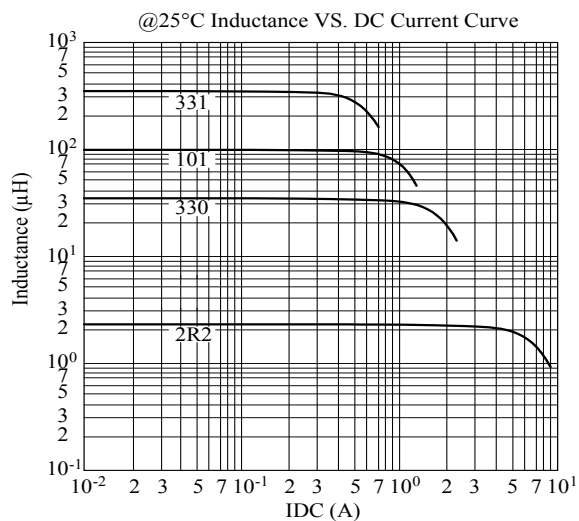
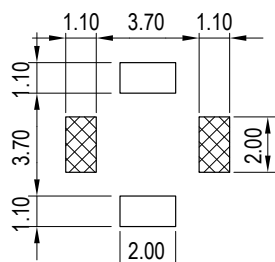
5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU5028 Series

ASU6025 Series

ASU8028 Series


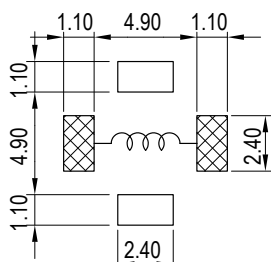
5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU8045 Series

ASU1028 Series

ASU1038 Series


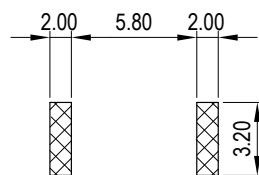
5028 / 6025 / 8028 / 8045 / 1028 / 1038 / 1048

ASU1048 Series

PCB Pattern


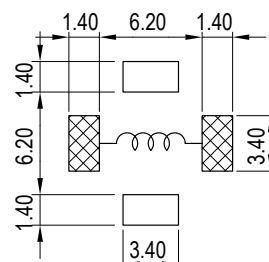
ASU5028



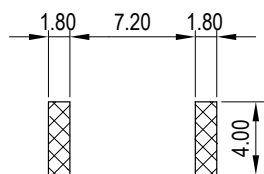
ASU6025



ASU8028

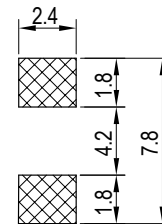
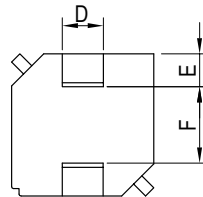
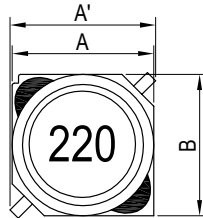


ASU8045


 ASU1028 / ASU1038
ASU1048

7032

High Inductance



(PCB Pattern)

Unit: mm

Series	A	A'	B	C	D	E	F
ASS7032	7.00±0.30	7.45 max.	7.00±0.30	3.20±0.20	2.00 typ.	1.50 typ.	4.00 typ.

Features

- Magnetic shielding allows high-density mounting
- Glazing base termination offers excellent terminal strength
- Wide inductance from 2.2 to 1,000 μ H
- Excellent current handling capability
- AEC-Q200 Grade 1
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



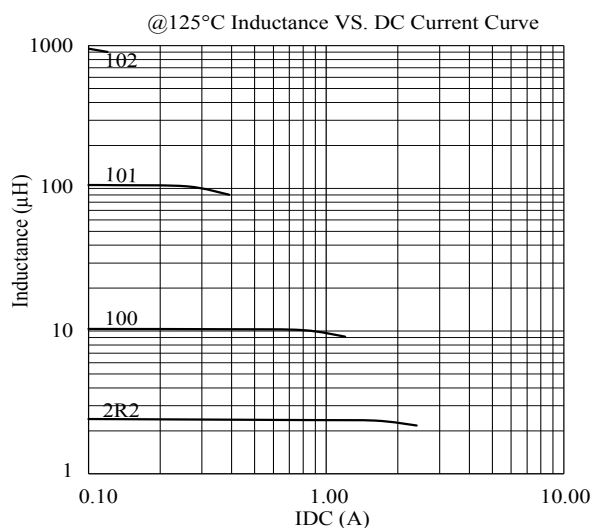
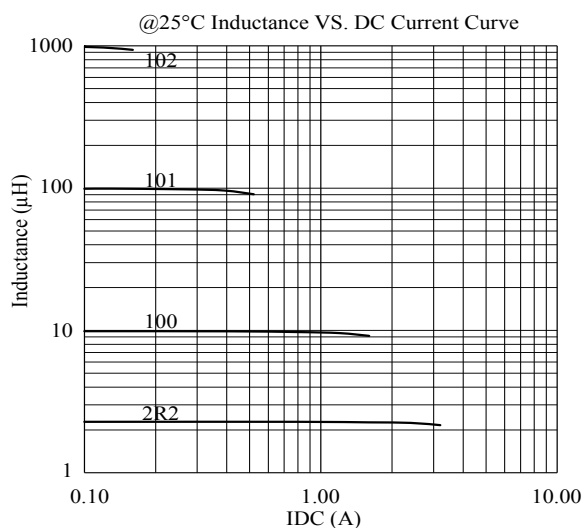
7032

ASS7032 Series

DWG. No.	Inductance (μH)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (mΩ) max.	I _{rms} (A) typ.	I _{sat} (A) max.
ASS70322R2MSB-□□□	2.2±20%	12	7.96	70.0	0.022	2.60	2.65
ASS70323R3MSB-□□□	3.3±20%	16	7.96	55.0	0.027	2.20	2.40
ASS70324R7MSB-□□□	4.7±20%	16	7.96	43.0	0.042	2.00	2.00
ASS70326R8MSB-□□□	6.8±20%	17	7.96	37.0	0.054	1.80	1.60
ASS7032100MSB-□□□	10.0±20%	25	2.52	35.0	0.068	1.60	1.40
ASS7032150MSB-□□□	15.0±20%	22	2.52	32.0	0.095	1.20	1.10
ASS7032220MSB-□□□	22.0±20%	20	2.52	29.0	0.135	1.05	0.96
ASS7032330MSB-□□□	33.0±20%	23	2.52	20.0	0.200	0.86	0.76
ASS7032470MSB-□□□	47.0±20%	26	2.52	18.0	0.270	0.70	0.67
ASS7032680MSB-□□□	68.0±20%	22	2.52	16.0	0.380	0.67	0.60
ASS7032101MSB-□□□	100.0±20%	28	0.796	12.0	0.540	0.50	0.45
ASS7032151MSB-□□□	150.0±20%	35	0.796	10.0	0.800	0.38	0.37
ASS7032221MSB-□□□	220.0±20%	47	0.796	7.5	1.300	0.32	0.30
ASS7032331MSB-□□□	330.0±20%	46	0.796	6.1	1.900	0.24	0.22
ASS7032471MSB-□□□	470.0±20%	34	0.796	5.1	2.400	0.20	0.20
ASS7032681MSB-□□□	680.0±20%	58	0.796	3.8	3.750	0.15	0.16
ASS7032102MSB-□□□	1000.0±20%	70	0.252	3.1	5.400	0.14	0.15

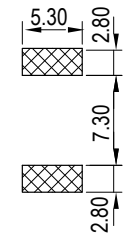
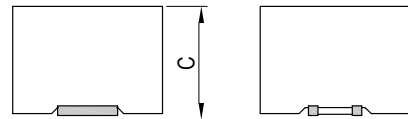
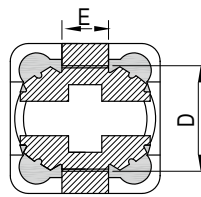
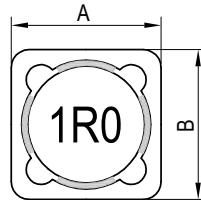
1. Electrical specifications at 25°C
2. Inductance test condition 1kHz/0.5V
3. I_{sat} base on ΔL/L0A=10% typ.
4. I_{rms} base on Temp. rise 30°C max.

ASS7032 Series



1210

High Inductance



(PCB Pattern)

Unit: mm

Series	A	B	C	D	F
ASS1210	12.0±0.50	12.0±0.50	10.0 max.	7.90 ref.	4.90 ref.

Features

- Magnetic shielding allows high-density mounting
- Glazing base termination offers excellent terminal strength
- Wide inductance from 1 to 1,000 μ H
- Excellent current handling capability
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM

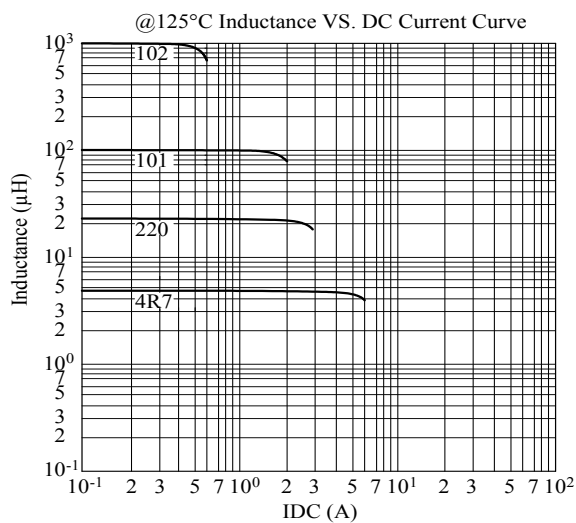
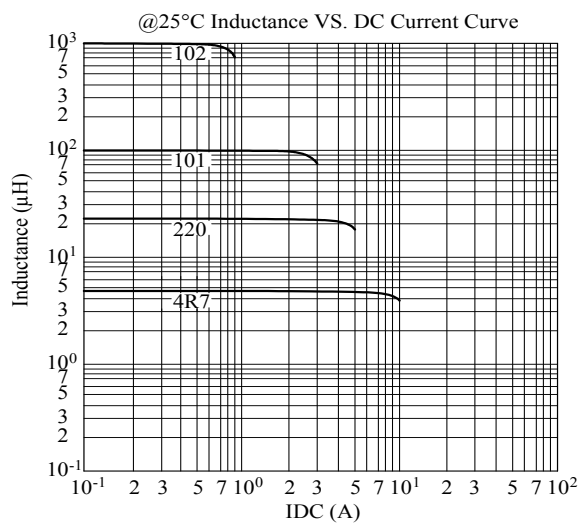


ASS1210 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (m Ω) max.	I _{rms} (A) typ.	I _{sat} (A) max.
ASS12101R0YHB-□□□	1.0 $\pm$ 30%	10	7.960	85.00	6.0	11.00	16.50
ASS12101R8YHB-□□□	1.8 $\pm$ 30%	10	7.960	56.00	7.5	10.20	13.20
ASS12102R2YHB-□□□	2.2 $\pm$ 30%	10	7.960	54.00	9.0	9.50	12.20
ASS12103R3YHB-□□□	3.3 $\pm$ 30%	15	7.960	44.00	10.0	9.00	10.50
ASS12104R7YHB-□□□	4.7 $\pm$ 30%	8	7.960	35.00	12.0	8.50	9.60
ASS12105R6YHB-□□□	5.6 $\pm$ 30%	12	7.960	28.00	13.5	8.00	8.50
ASS12106R8YHB-□□□	6.8 $\pm$ 30%	12	7.960	20.00	15.0	7.85	8.30
ASS12108R2YHB-□□□	8.2 $\pm$ 30%	11	7.960	16.00	17.0	7.25	7.55
ASS1210100MHB-□□□	10.0 $\pm$ 20%	16	2.520	12.00	18.0	6.50	6.50
ASS1210120MHB-□□□	12.0 $\pm$ 20%	14	2.520	18.00	22.0	6.30	6.10
ASS1210150MHB-□□□	15.0 $\pm$ 20%	16	2.520	10.50	32.0	5.80	5.30
ASS1210180MHB-□□□	18.0 $\pm$ 20%	13	2.520	8.00	35.0	5.50	5.10
ASS1210220MHB-□□□	22.0 $\pm$ 20%	16	2.520	8.00	38.0	5.20	4.50
ASS1210270MHB-□□□	27.0 $\pm$ 20%	16	2.520	6.50	40.0	5.00	4.20
ASS1210330MHB-□□□	33.0 $\pm$ 20%	16	2.520	6.50	52.0	4.40	3.70
ASS1210390MHB-□□□	39.0 $\pm$ 20%	16	2.520	4.50	66.0	4.20	3.50
ASS1210470MHB-□□□	47.0 $\pm$ 20%	16	2.520	4.50	72.0	3.80	3.10
ASS1210560MHB-□□□	56.0 $\pm$ 20%	8	2.520	4.00	90.0	3.40	2.90
ASS1210680MHB-□□□	68.0 $\pm$ 20%	12	2.520	3.80	102.0	3.00	2.70
ASS1210820MHB-□□□	82.0 $\pm$ 20%	15	2.520	3.50	112.0	2.80	2.50
ASS1210101MHB-□□□	100.0 $\pm$ 20%	16	0.796	3.00	135.0	2.50	2.20
ASS1210121MHB-□□□	120.0 $\pm$ 20%	13	0.796	2.60	170.0	2.30	1.90
ASS1210151MHB-□□□	150.0 $\pm$ 20%	12	0.796	2.20	190.0	2.20	1.80
ASS1210181MHB-□□□	180.0 $\pm$ 20%	14	0.796	1.80	250.0	1.90	1.60
ASS1210221MHB-□□□	220.0 $\pm$ 20%	15	0.796	1.80	315.0	1.70	1.50
ASS1210271MHB-□□□	270.0 $\pm$ 20%	16	0.796	1.80	410.0	1.50	1.30
ASS1210331MHB-□□□	330.0 $\pm$ 20%	14	0.796	1.80	450.0	1.40	1.20
ASS1210391MHB-□□□	390.0 $\pm$ 20%	16	0.796	1.30	600.0	1.30	1.10
ASS1210471MHB-□□□	470.0 $\pm$ 20%	12	0.796	0.85	820.0	1.20	1.00
ASS1210561MHB-□□□	560.0 $\pm$ 20%	12	0.796	0.85	900.0	1.10	0.95
ASS1210681MHB-□□□	680.0 $\pm$ 20%	11	0.796	0.85	1200.0	1.00	0.85
ASS1210821MHB-□□□	820.0 $\pm$ 20%	6	0.796	0.85	1320.0	0.85	0.75
ASS1210102MHB-□□□	1000.0 $\pm$ 20%	22	0.796	0.85	1650.0	0.75	0.70

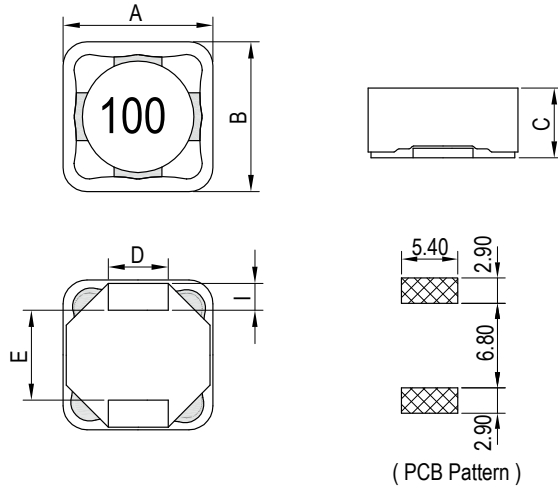
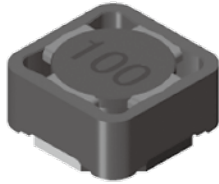
1. Electrical specifications at 25°C
2. Inductance Test Freq.: 1kHz/0.25V
3. I_{rms} base on Temp. rise 40°C max.
4. I_{sat} base on Δ L/L0A=20% typ.

ASS1210 Series



1260 / 1280

High Inductance



Unit: mm

Series	A	B	C	D	E	I
ASS1260	12.5±0.30	12.5±0.30	6.00±0.50	5.00±0.30	7.00 typ.	2.50±0.15
ASS1280	12.5±0.30	12.5±0.30	7.50±0.50	5.00±0.30	7.00 typ.	2.50±0.15

Features

- Magnetic shielding allows high-density mounting
- Glazing base termination offers excellent terminal strength
- Wide inductance from 1 to 1,200 μ H
- Excellent current handling capability
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



1260 / 1280

ASS1260 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (m Ω) max.	I _{rms} (A) typ.	I _{sat} (A) typ.
ASS12601R0YHB-□□□	1.0 $\pm$ 30%	26	7.960	100.00	7.8	9.40	10.00
ASS12601R5YHB-□□□	1.5 $\pm$ 30%	24	7.960	86.00	9.5	8.80	9.00
ASS12602R2YHB-□□□	2.2 $\pm$ 30%	22	7.960	70.00	10.5	8.20	8.50
ASS12603R3YHB-□□□	3.3 $\pm$ 30%	20	7.960	40.00	12.0	7.60	7.80
ASS12604R7YHB-□□□	4.7 $\pm$ 30%	19	7.960	36.70	15.5	6.80	7.00
ASS12605R6YHB-□□□	5.6 $\pm$ 30%	19	7.960	33.00	16.2	6.70	6.90
ASS12606R8YHB-□□□	6.8 $\pm$ 30%	20	7.960	28.20	18.0	6.30	6.50
ASS12608R2YHB-□□□	8.2 $\pm$ 30%	18	7.960	24.00	19.5	5.70	5.80
ASS1260100MHB-□□□	10.0 $\pm$ 20%	32	2.520	21.00	20.0	5.50	5.50
ASS1260120MHB-□□□	12.0 $\pm$ 20%	27	2.520	19.40	23.0	5.20	5.00
ASS1260150MHB-□□□	15.0 $\pm$ 20%	25	2.520	17.60	27.0	5.00	4.60
ASS1260180MHB-□□□	18.0 $\pm$ 20%	28	2.520	15.50	36.0	4.20	3.90
ASS1260220MHB-□□□	22.0 $\pm$ 20%	29	2.520	13.40	43.0	4.00	3.70
ASS1260270MHB-□□□	27.0 $\pm$ 20%	26	2.520	12.70	45.0	3.60	3.30
ASS1260330MHB-□□□	33.0 $\pm$ 20%	27	2.520	9.97	60.0	3.00	2.80
ASS1260390MHB-□□□	39.0 $\pm$ 20%	22	2.520	10.40	70.0	2.80	2.70
ASS1260470MHB-□□□	47.0 $\pm$ 20%	22	2.520	7.63	86.0	2.60	2.50
ASS1260560MHB-□□□	56.0 $\pm$ 20%	24	2.520	7.92	100.0	2.30	2.20
ASS1260680MHB-□□□	68.0 $\pm$ 20%	22	2.520	7.43	110.0	2.10	2.10
ASS1260820MHB-□□□	82.0 $\pm$ 20%	25	2.520	6.85	145.0	1.95	1.90
ASS1260101MHB-□□□	100.0 $\pm$ 20%	26	0.796	6.07	180.0	1.70	1.70
ASS1260121KHB-□□□	120.0 $\pm$ 10%	26	0.796	5.50	210.0	1.65	1.65
ASS1260151KHB-□□□	150.0 $\pm$ 10%	20	0.796	5.00	260.0	1.55	1.55
ASS1260181KHB-□□□	180.0 $\pm$ 10%	26	0.796	4.50	320.0	1.40	1.40
ASS1260221KHB-□□□	220.0 $\pm$ 10%	22	0.796	4.20	380.0	1.38	1.30
ASS1260271KHB-□□□	270.0 $\pm$ 10%	20	0.796	3.60	450.0	1.30	1.20
ASS1260331KHB-□□□	330.0 $\pm$ 10%	22	0.796	3.20	580.0	1.15	1.10
ASS1260391KHB-□□□	390.0 $\pm$ 10%	20	0.796	2.80	700.0	1.08	1.00
ASS1260471KHB-□□□	470.0 $\pm$ 10%	18	0.796	2.60	820.0	0.95	0.90
ASS1260561KHB-□□□	560.0 $\pm$ 10%	22	0.796	2.40	1000.0	0.88	0.80
ASS1260681KHB-□□□	680.0 $\pm$ 10%	18	0.796	2.20	1150.0	0.80	0.75
ASS1260821KHB-□□□	820.0 $\pm$ 10%	20	0.796	2.00	1500.0	0.73	0.63
ASS1260102KHB-□□□	1000.0 $\pm$ 10%	30	0.252	1.80	1700.0	0.68	0.60

1. Electrical specifications at 25°C
2. Inductance Test Freq.: 100kHz / 0.1V (1R0Y~8R2Y), 1kHz / 1V (100M~102K)
3. I_{rms} Base on temp rise 40°C typ.
4. I_{sat} Base on $\Delta L/L0A=25\%$ typ.

ASS1280 Series

DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) typ.	RDC (m Ω) max.	I _{rms} (A) typ.	I _{sat} (A) typ.
ASS12802R4YHB-□□□	2.4 $\pm$ 30%	30	7.960	36.0	10.0	9.20	12.00
ASS12803R9YHB-□□□	3.9 $\pm$ 30%	28	7.960	34.0	14.0	8.40	10.50
ASS12804R7YHB-□□□	4.7 $\pm$ 30%	22	7.960	30.0	15.5	8.20	8.80
ASS12806R8YHB-□□□	6.8 $\pm$ 30%	20	7.960	22.0	18.5	7.60	8.00
ASS12808R2YHB-□□□	8.2 $\pm$ 30%	22	2.520	20.0	20.5	6.20	6.80
ASS1280100MHB-□□□	10.0 $\pm$ 20%	24	2.520	17.0	19.5	6.00	6.60
ASS1280120MHB-□□□	12.0 $\pm$ 20%	26	2.520	15.0	28.0	5.60	6.30
ASS1280150MHB-□□□	15.0 $\pm$ 20%	26	2.520	13.0	28.5	5.20	5.00
ASS1280180MHB-□□□	18.0 $\pm$ 20%	24	2.520	12.0	35.0	4.80	4.60
ASS1280220MHB-□□□	22.0 $\pm$ 20%	20	2.520	11.0	38.6	4.30	4.10
ASS1280270MHB-□□□	27.0 $\pm$ 20%	26	2.520	10.0	52.0	3.90	3.70
ASS1280330MHB-□□□	33.0 $\pm$ 20%	28	2.520	9.5	57.0	3.50	3.30
ASS1280390MHB-□□□	39.0 $\pm$ 20%	24	2.520	8.5	70.0	3.20	3.10
ASS1280470MHB-□□□	47.0 $\pm$ 20%	24	2.520	7.5	80.0	2.90	2.80
ASS1280560MHB-□□□	56.0 $\pm$ 20%	24	2.520	7.0	100.0	2.60	2.50
ASS1280680MHB-□□□	68.0 $\pm$ 20%	20	2.520	6.5	120.0	2.40	2.30
ASS1280820MHB-□□□	82.0 $\pm$ 20%	20	2.520	5.0	130.0	2.30	2.20
ASS1280101MHB-□□□	100.0 $\pm$ 20%	18	0.796	4.5	150.0	2.10	2.00
ASS1280121KHB-□□□	120.0 $\pm$ 10%	16	0.796	4.3	200.0	1.95	1.95
ASS1280151KHB-□□□	150.0 $\pm$ 10%	24	0.796	4.1	270.0	1.85	1.90
ASS1280181KHB-□□□	180.0 $\pm$ 10%	24	0.796	4.0	300.0	1.75	1.88
ASS1280221KHB-□□□	220.0 $\pm$ 10%	24	0.796	3.4	400.0	1.60	1.70
ASS1280271KHB-□□□	270.0 $\pm$ 10%	20	0.796	3.1	450.0	1.20	1.60
ASS1280331KHB-□□□	330.0 $\pm$ 10%	18	0.796	2.9	600.0	1.10	1.40
ASS1280391KHB-□□□	390.0 $\pm$ 10%	20	0.796	2.7	680.0	1.00	1.40
ASS1280471KHB-□□□	470.0 $\pm$ 10%	20	0.796	2.2	880.0	0.90	1.25
ASS1280561KHB-□□□	560.0 $\pm$ 10%	20	0.796	2.0	960.0	0.80	1.15
ASS1280681KHB-□□□	680.0 $\pm$ 10%	26	0.796	1.7	1300.0	0.75	0.97
ASS1280821KHB-□□□	820.0 $\pm$ 10%	20	0.796	1.4	1500.0	0.70	0.94
ASS1280102KHB-□□□	1000.0 $\pm$ 10%	40	0.252	1.3	1700.0	0.68	0.80
ASS1280122KHB-□□□	1200.0 $\pm$ 10%	40	0.252	1.1	2200.0	0.55	0.65

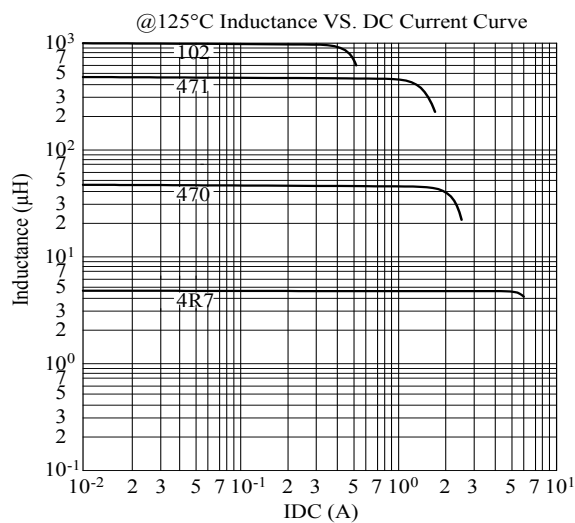
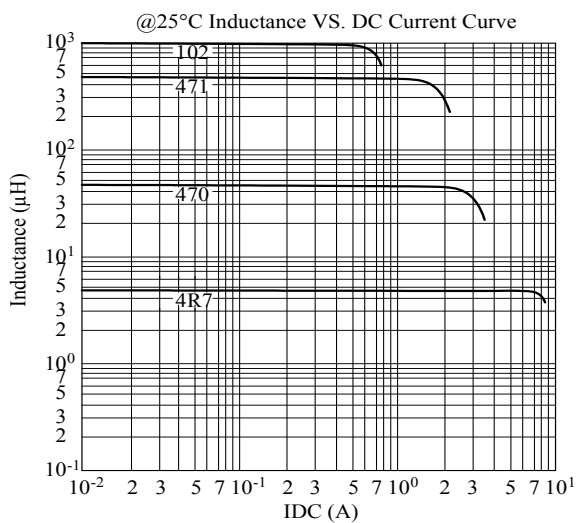
1. Electrical specifications at 25°C

2. L Test Freq.: 2R4~8R2 : 100kHz / 1V , 100~122 : 1kHz / 1V

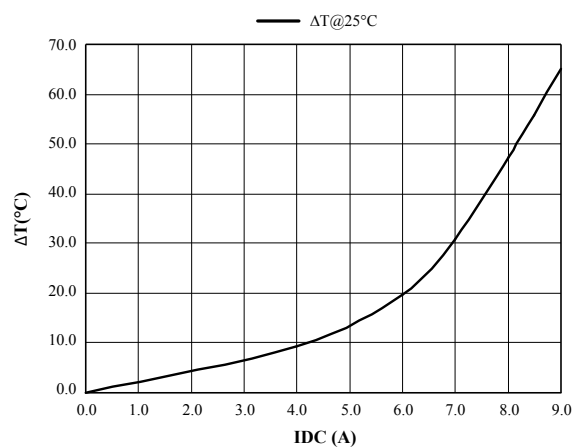
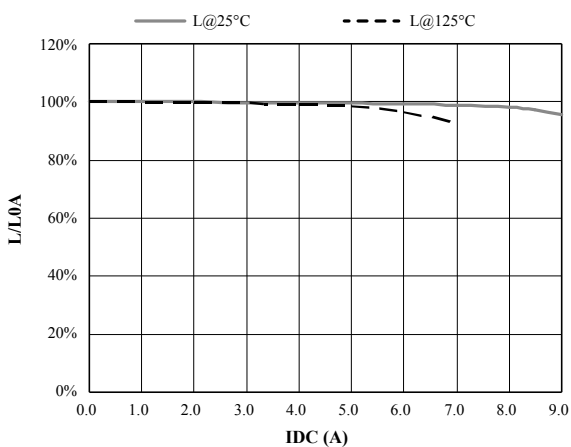
3. I_{rms} base on Temp. rise 40°C typ.

4. I_{sat} base on $\Delta L/L_0A=25\%$ typ.

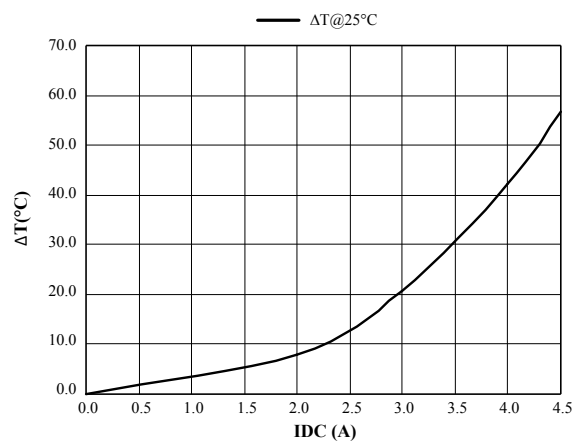
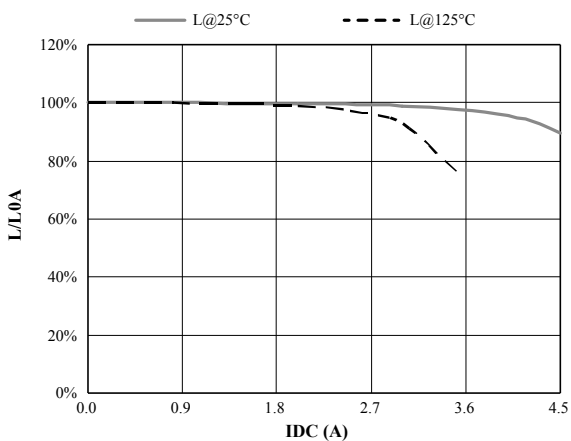
ASS1260 Series



ASS12804R7YHB

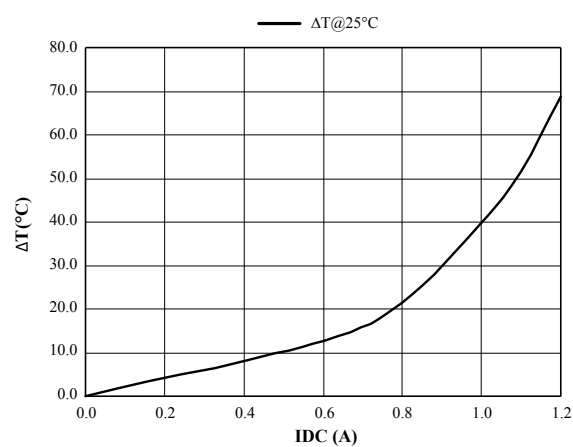
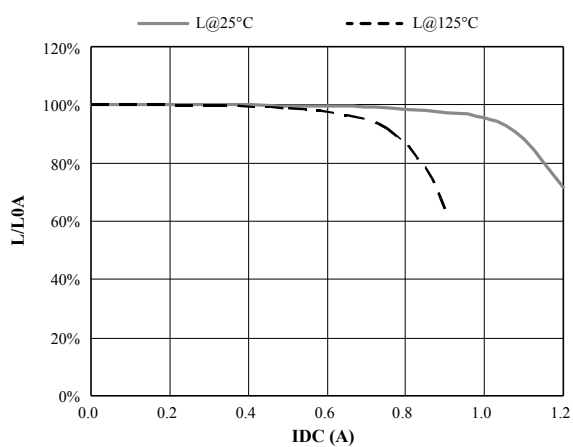


ASS1280270MHB

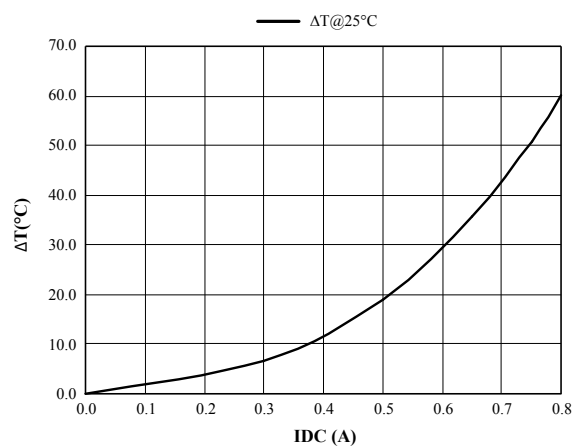
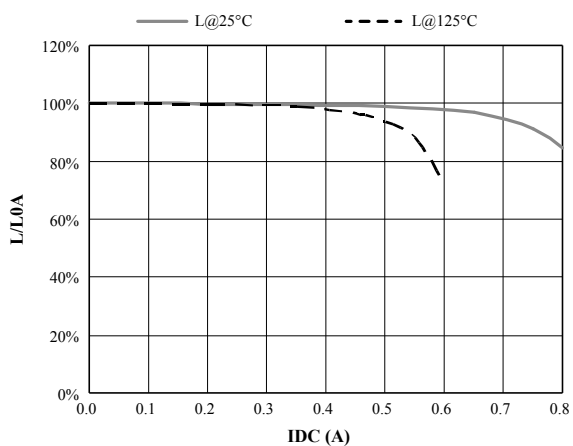


1260 / 1280

ASS1280471KHB

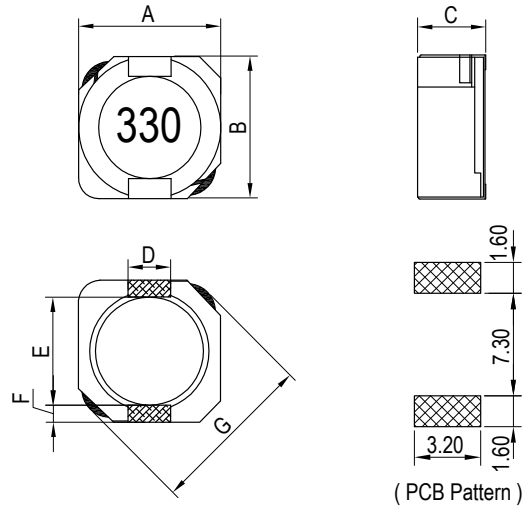


ASS1280102KHB



1048

High Performance



Unit: mm

Series	A	B	C	D	E	F	G
ACU1048	10.00±0.30	10.20±0.30	4.80±0.30	3.00±0.30	7.80±0.40	1.20±0.15	13.00 ref.

Features

- Metal terminal direct clip on outside body
- Magnetic shielding allows high-density mounting
- High current
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM

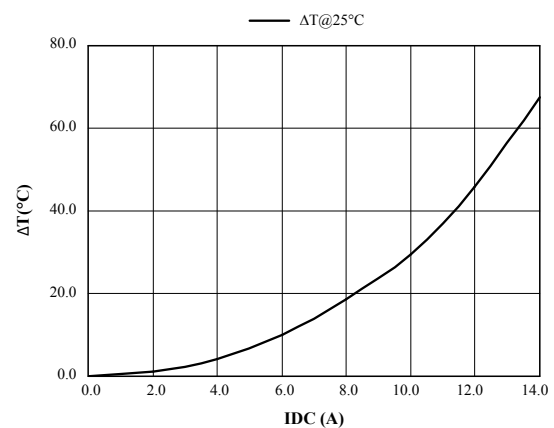
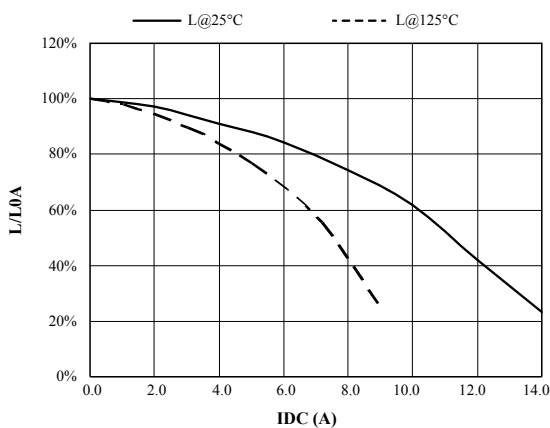


ACU1048 Series

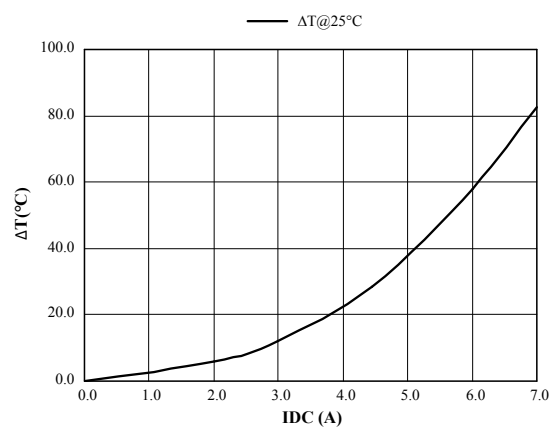
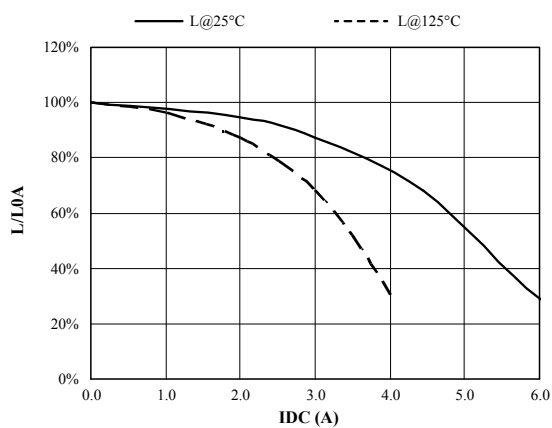
DWG. No.	Inductance (μ H)	Q ref.	Test Freq. (MHz)	SRF (MHz) ref.	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
					typ.	max.		
ACU1048R68YFB-□□□	0.68 $\pm$ 30%	8.0	7.960	110.0	4.5	5.5	13.50	9.50
ACU10481R2YFB-□□□	1.2 $\pm$ 30%	10.0	7.960	85.0	5.8	7.0	10.50	8.30
ACU10482R2YFB-□□□	2.2 $\pm$ 30%	9.0	7.960	53.0	7.1	9.0	8.20	7.20
ACU10483R3YFB-□□□	3.3 $\pm$ 30%	10.0	7.960	40.0	8.6	11.0	7.80	6.50
ACU10484R2YFB-□□□	4.2 $\pm$ 30%	10.0	7.960	29.0	10.4	14.0	6.40	6.10
ACU10486R8YFB-□□□	6.8 $\pm$ 30%	9.0	7.960	27.0	15.1	19.0	5.40	5.40
ACU10488R2YFB-□□□	8.2 $\pm$ 30%	9.0	7.960	21.0	18.1	22.0	4.85	5.00
ACU1048100YFB-□□□	10.0 $\pm$ 30%	52.0	2.520	16.5	23.0	31.0	4.45	4.50
ACU1048120YFB-□□□	12.0 $\pm$ 30%	45.0	2.520	15.0	26.0	35.0	4.00	3.80
ACU1048150YFB-□□□	15.0 $\pm$ 30%	46.0	2.520	14.0	35.0	47.0	3.60	3.40
ACU1048180YFB-□□□	18.0 $\pm$ 30%	42.0	2.520	11.0	38.0	51.0	3.20	3.10
ACU1048220YFB-□□□	22.0 $\pm$ 30%	33.0	2.520	10.5	46.0	62.0	2.95	2.90
ACU1048270YFB-□□□	27.0 $\pm$ 30%	37.0	2.520	10.0	57.0	77.0	2.70	2.60
ACU1048330YFB-□□□	33.0 $\pm$ 30%	37.0	2.520	9.0	69.0	93.0	2.40	2.50
ACU1048390YFB-□□□	39.0 $\pm$ 30%	33.0	2.520	6.8	79.0	106.0	2.30	2.25
ACU1048470YFB-□□□	47.0 $\pm$ 30%	28.0	2.520	5.9	94.0	127.0	2.00	2.00
ACU1048560YFB-□□□	56.0 $\pm$ 30%	32.0	2.520	5.5	124.0	160.0	1.90	1.90
ACU1048680YFB-□□□	68.0 $\pm$ 30%	30.0	2.520	5.0	138.0	208.0	1.65	1.60
ACU1048820YFB-□□□	82.0 $\pm$ 30%	31.0	2.520	4.5	150.0	230.0	1.50	1.45
ACU1048101YFB-□□□	100.0 $\pm$ 30%	29.0	0.796	4.2	179.0	255.0	1.35	1.35
ACU1048121YFB-□□□	120.0 $\pm$ 30%	29.0	0.796	3.8	213.0	305.0	1.28	1.18
ACU1048151YFB-□□□	150.0 $\pm$ 30%	28.0	0.796	3.6	253.0	370.0	1.12	1.10
ACU1048181YFB-□□□	180.0 $\pm$ 30%	30.0	0.796	3.4	307.0	420.0	1.04	1.00
ACU1048221YFB-□□□	220.0 $\pm$ 30%	25.0	0.796	3.0	373.0	500.0	0.94	0.94
ACU1048271YFB-□□□	270.0 $\pm$ 30%	26.0	0.796	2.4	491.0	675.0	0.84	0.80
ACU1048331YFB-□□□	330.0 $\pm$ 30%	27.0	0.796	2.0	613.0	815.0	0.75	0.73
ACU1048471YFB-□□□	470.0 $\pm$ 30%	33.0	0.796	1.8	990.0	1200.0	0.70	0.60

1. Electrical specifications at 25°C
2. Inductance test condition.: 100kHz / 0.1V
3. Irms base on temp. rise 40°C typ.
4. Isat base on $\Delta L/L0A=35\%$ typ.

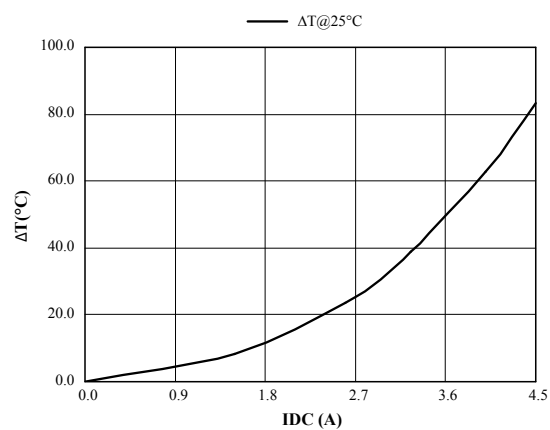
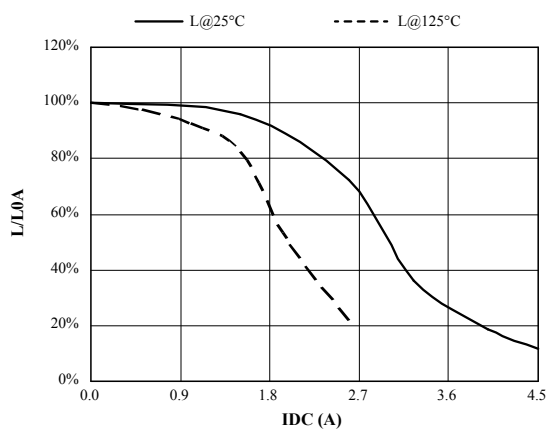
ACU10488R2YFB



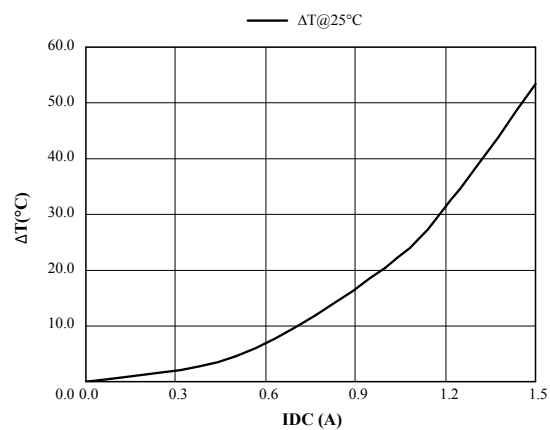
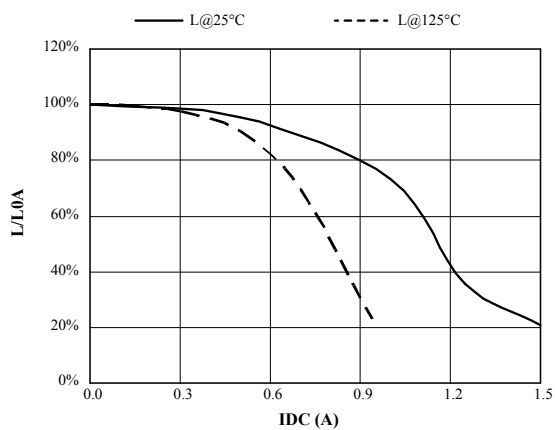
ACU1048100YFB



ACU1048270YFB

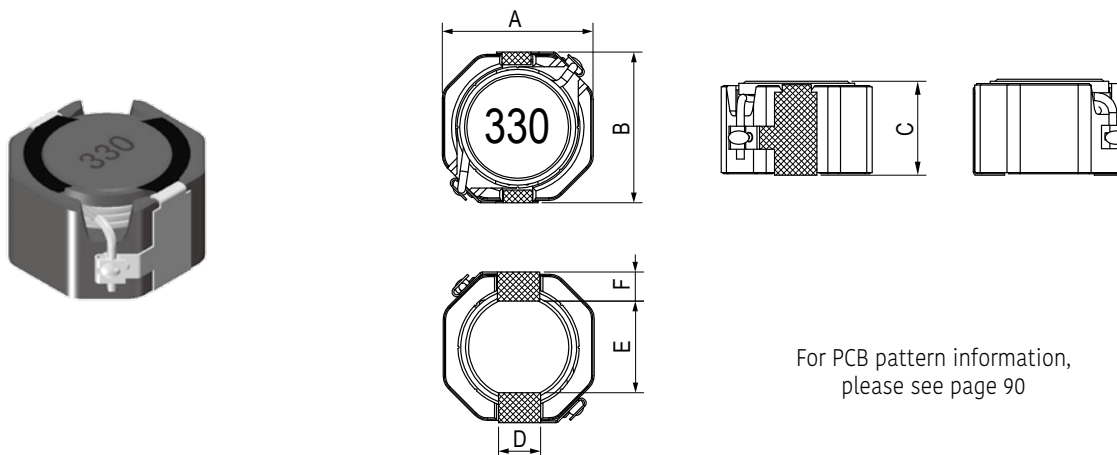


ACU1048221YFB



1277 / 1255 / 1040 / 1060 / 6045 / 7045

High Performance



For PCB pattern information,
please see page 90

Unit: mm

Series	A	B	C	D	E	F
MCU1227	12.50±0.30	12.80±0.30	7.70±0.30	3.50±0.15	7.80 typ.	2.50±0.30
MCU1255	12.10±0.30	12.50±0.30	5.50±0.35	3.00±0.15	8.50 typ.	2.00±0.30
MCU1040	10.00±0.30	10.20±0.30	3.80±0.30	3.00±0.15	6.00 ref.	2.00±0.15
MCU1060	10.00±0.30	10.20±0.30	6.00±0.30	3.00±0.15	4.90 ref.	2.65±0.15
MCU6045	6.00±0.20	6.30±0.20	4.50±0.30	2.00±0.15	2.90 typ.	1.70±0.20
MCU7045	7.00±0.20	7.40±0.20	4.50±0.30	2.00±0.10	3.40 typ.	2.00±0.15

Features

- Metal terminal direct clip on outside body
- Magnetic shielding allows high-density mounting
- High current
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- LED Lighting
- HVAC
- Infotainment
- BCM



1277 / 1255 / 1040 / 1060 / 6045 / 7045

MCU1277 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MCU1277220MSB-□□□	22.0 $\pm$ 20%	26.50	34.50	5.50	5.80
MCU1277330MSB-□□□	33.0 $\pm$ 20%	40.20	52.50	4.00	4.00
MCU1277390MSB-□□□	39.0 $\pm$ 20%	43.50	56.5	3.80	3.80
MCU1277470MSB-□□□	47.0 $\pm$ 20%	47.50	59.5	3.40	3.50
MCU1277680MSB-□□□	68.0 $\pm$ 20%	67.50	84.5	3.00	2.95
MCU1277820MSB-□□□	82.0 $\pm$ 20%	86.50	108.0	2.60	2.80
MCU1277101MSB-□□□	100.0 $\pm$ 20%	101.20	127.0	2.40	2.70
MCU1277151MSB-□□□	150.0 $\pm$ 20%	150.00	187.0	1.90	2.20
MCU1277221MSB-□□□	220.0 $\pm$ 20%	237.50	295.0	1.70	1.70
MCU1277331MSB-□□□	330.0 $\pm$ 20%	324.00	390.0	1.40	1.35
MCU1277471MSB-□□□	470.0 $\pm$ 20%	478.00	574.0	1.10	1.20

MCU1255 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MCU1255220MSB-□□□	22.0 $\pm$ 20%	43.00	51.60	4.80	2.80
MCU1255330MSB-□□□	33.0 $\pm$ 20%	67.00	80.40	4.00	2.20
MCU1255470MSB-□□□	47.0 $\pm$ 20%	100.00	120.00	3.20	1.80
MCU1255680MSB-□□□	68.0 $\pm$ 20%	125.00	150.00	2.60	1.60
MCU1255101MSB-□□□	100.0 $\pm$ 20%	190.00	228.00	2.10	1.30
MCU1255151MSB-□□□	150.0 $\pm$ 20%	260.00	312.00	1.80	1.10
MCU1255221MSB-□□□	220.0 $\pm$ 20%	370.00	444.00	1.50	0.90
MCU1255331MSB-□□□	330.0 $\pm$ 20%	560.00	672.00	1.20	0.70
MCU1255471MSB-□□□	470.0 $\pm$ 20%	795.00	954.00	1.00	0.60

MCU1040 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
		typ.	max.		
MCU10401R0YSB-□□□	1.0 $\pm$ 30%	5.90	7.70	12.00	6.30
MCU10401R5YSB-□□□	1.5 $\pm$ 30%	7.50	9.80	10.60	5.80
MCU10402R7YSB-□□□	2.7 $\pm$ 30%	9.70	12.60	7.20	4.70
MCU10404R7YSB-□□□	4.7 $\pm$ 30%	15.70	20.40	5.40	4.20
MCU10406R8YSB-□□□	6.8 $\pm$ 30%	20.50	26.60	4.80	3.70
MCU1040100MSB-□□□	10.0 $\pm$ 20%	32.00	41.60	4.00	3.30
MCU1040150MSB-□□□	15.0 $\pm$ 20%	44.50	57.80	3.20	2.50
MCU1040220MSB-□□□	22.0 $\pm$ 20%	66.60	86.50	2.70	2.20
MCU1040330MSB-□□□	33.0 $\pm$ 20%	91.00	119.00	2.20	1.70
MCU1040470MSB-□□□	47.0 $\pm$ 20%	127.00	160.00	1.90	1.30
MCU1040680MSB-□□□	68.0 $\pm$ 20%	185.00	232.00	1.60	1.10
MCU1040101MSB-□□□	100.0 $\pm$ 20%	261.00	327.00	1.30	1.00
MCU1040151MSB-□□□	150.0 $\pm$ 20%	383.00	478.00	1.00	0.80
MCU1040221MSB-□□□	220.0 $\pm$ 20%	616.00	740.00	0.88	0.70
MCU1040331MSB-□□□	330.0 $\pm$ 20%	904.00	1085.00	0.70	0.53
MCU1040471MSB-□□□	470.0 $\pm$ 20%	1120.00	1430.00	0.56	0.44
MCU1040681MSB-□□□	680.0 $\pm$ 20%	1870.00	2240.00	0.48	0.40

1277 / 1255 / 1040 / 1060 / 6045 / 7045

MCU1060 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	I _{rms} (A) typ.
		typ.	max.		
MCU10603R3YSB-□□□	3.3 $\pm$ 30%	8.500	12.00	8.40	8.10
MCU10604R7YSB-□□□	4.7 $\pm$ 30%	11.00	14.30	8.00	7.00
MCU10606R8YSB-□□□	6.8 $\pm$ 30%	13.00	17.00	6.50	6.60
MCU1060100MSB-□□□	10.0 $\pm$ 20%	17.00	22.10	5.00	5.80
MCU1060150MSB-□□□	15.0 $\pm$ 20%	30.00	39.00	4.40	4.10
MCU1060220MSB-□□□	22.0 $\pm$ 20%	43.00	56.00	3.60	3.30
MCU1060330MSB-□□□	33.0 $\pm$ 20%	61.00	76.30	3.10	2.90
MCU1060470MSB-□□□	47.0 $\pm$ 20%	74.00	92.50	2.35	2.60
MCU1060680MSB-□□□	68.0 $\pm$ 20%	91.00	113.80	2.05	2.40
MCU1060101MSB-□□□	100.0 $\pm$ 20%	150.0	187.50	1.65	1.90
MCU1060151MSB-□□□	150.0 $\pm$ 20%	240.0	300.00	1.35	1.50
MCU1060221MSB-□□□	220.0 $\pm$ 20%	350.0	420.00	1.10	1.20
MCU1060331MSB-□□□	330.0 $\pm$ 20%	445.0	534.00	0.90	1.10
MCU1060471MSB-□□□	470.0 $\pm$ 20%	600.0	720.00	0.75	0.90
MCU1060681MSB-□□□	680.0 $\pm$ 20%	850.0	1020.00	0.55	0.68

MCU6045 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	I _{rms} (A) typ.
		typ.	max.		
MCU60451R0YSB-□□□	1.0 $\pm$ 30%	11.00	14.30	6.70	4.80
MCU60451R5YSB-□□□	1.5 $\pm$ 30%	13.00	16.90	5.50	4.50
MCU60452R2YSB-□□□	2.2 $\pm$ 30%	15.00	19.50	4.20	4.10
MCU60453R3YSB-□□□	3.3 $\pm$ 30%	19.00	24.70	3.50	3.70
MCU60454R7YSB-□□□	4.7 $\pm$ 30%	23.00	30.00	3.10	3.30
MCU60456R8YSB-□□□	6.8 $\pm$ 30%	27.00	35.00	2.50	3.10
MCU6045100MSB-□□□	10.0 $\pm$ 20%	35.00	42.00	2.10	2.60
MCU6045150MSB-□□□	15.0 $\pm$ 20%	60.00	72.00	1.70	2.00
MCU6045220MSB-□□□	22.0 $\pm$ 20%	75.00	90.00	1.40	1.80
MCU6045330MSB-□□□	33.0 $\pm$ 20%	100.00	120.00	1.10	1.60
MCU6045470MSB-□□□	47.0 $\pm$ 20%	130.00	156.00	0.97	1.40
MCU6045680MSB-□□□	68.0 $\pm$ 20%	200.00	240.00	0.81	1.10
MCU6045101MSB-□□□	100.0 $\pm$ 20%	320.00	385.00	0.61	0.86
MCU6045151MSB-□□□	150.0 $\pm$ 20%	480.00	575.00	0.53	0.72
MCU6045221MSB-□□□	220.0 $\pm$ 20%	720.00	865.00	0.47	0.57
MCU6045331MSB-□□□	330.0 $\pm$ 20%	920.00	1105.00	0.36	0.49
MCU6045471MSB-□□□	470.0 $\pm$ 20%	1300.00	1560.00	0.28	0.41

1. Electrical specifications at 25°C
2. Inductance test condition.: 100kHz / 0.1V
3. Isat base on $\Delta L/L0A=35\%$ typ.
4. I_{rms} base on temp. rise 40°C typ.

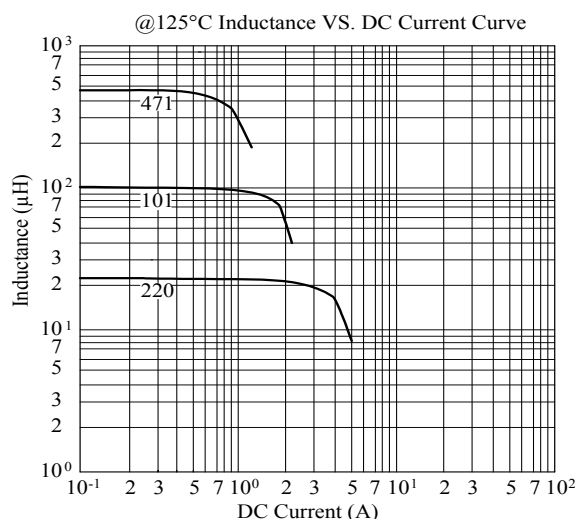
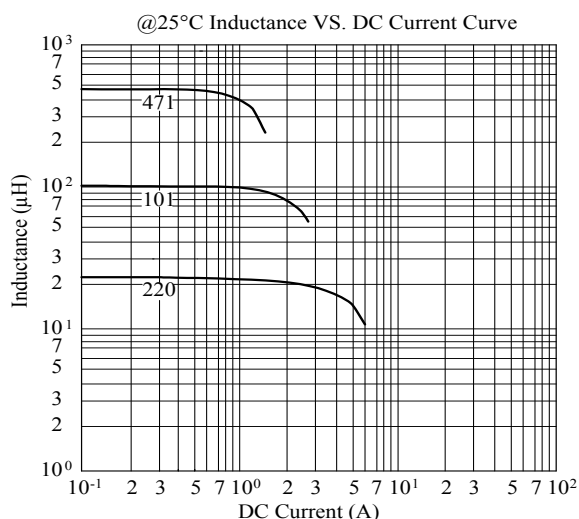
1277 / 1255 / 1040 / 1060 / 6045 / 7045

MCU7045 Series

DWG. No.	Inductance (μ H)	RDC (m Ω)		Isat (A) typ.	I _{rms} (A) typ.
		typ.	max.		
MCU70451R0YSB-□□□	1.00 $\pm$ 30%	9.00	12.00	8.50	6.50
MCU70451R5YSB-□□□	1.50 $\pm$ 30%	10.00	13.00	6.30	5.40
MCU70452R2YSB-□□□	2.20 $\pm$ 30%	13.00	17.00	6.20	5.10
MCU70453R3YSB-□□□	3.30 $\pm$ 30%	16.00	21.00	4.70	4.80
MCU70454R7YSB-□□□	4.70 $\pm$ 30%	18.00	23.50	4.10	4.10
MCU70456R8YSB-□□□	6.80 $\pm$ 30%	22.00	29.00	3.10	3.90
MCU7045100MSB-□□□	10.0 $\pm$ 20%	33.00	40.00	3.00	3.10
MCU7045150MSB-□□□	15.0 $\pm$ 20%	55.00	66.00	2.30	2.60
MCU7045220MSB-□□□	22.0 $\pm$ 20%	69.00	83.00	1.70	2.20
MCU7045330MSB-□□□	33.0 $\pm$ 20%	97.00	116.50	1.60	1.80
MCU7045470MSB-□□□	47.0 $\pm$ 20%	130.00	156.00	1.26	1.70
MCU7045680MSB-□□□	68.0 $\pm$ 20%	170.00	204.00	1.08	1.50
MCU7045101MSB-□□□	100.0 $\pm$ 20%	260.00	312.00	0.81	1.05
MCU7045151MSB-□□□	150.0 $\pm$ 20%	430.00	516.00	0.69	0.95
MCU7045221MSB-□□□	220.0 $\pm$ 20%	550.00	660.00	0.56	0.75
MCU7045331MSB-□□□	330.0 $\pm$ 20%	800.00	960.00	0.50	0.58
MCU7045471MSB-□□□	470.0 $\pm$ 20%	1200.00	1440.00	0.41	0.46

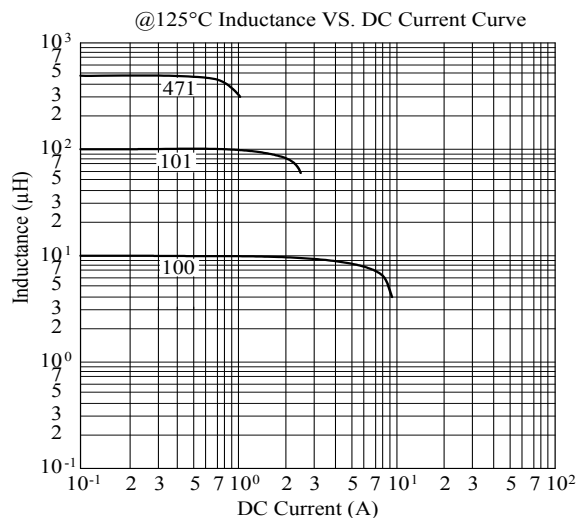
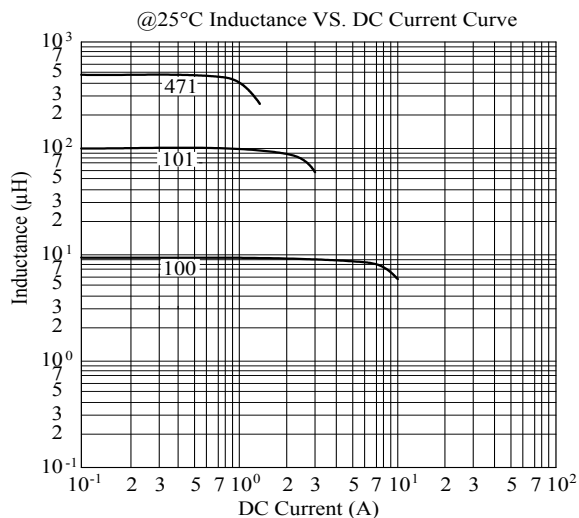
1. Electrical specifications at 25°C
2. Inductance test condition.: 100kHz / 0.1V
3. Isat base on $\Delta L/L0A=30\%$ typ.
4. I_{rms} base on temp. rise 40°C typ.

MCU1255 Series

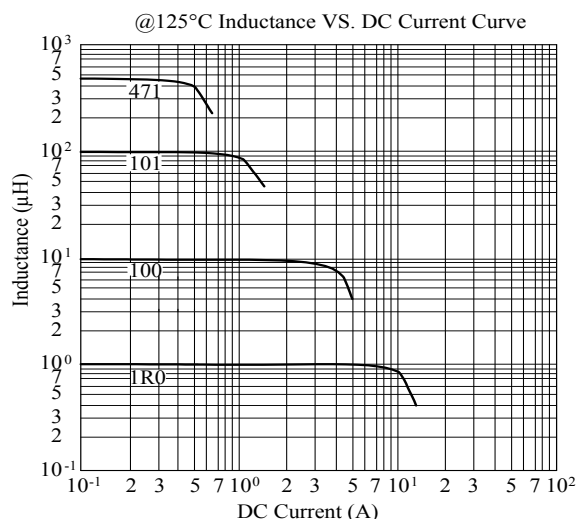
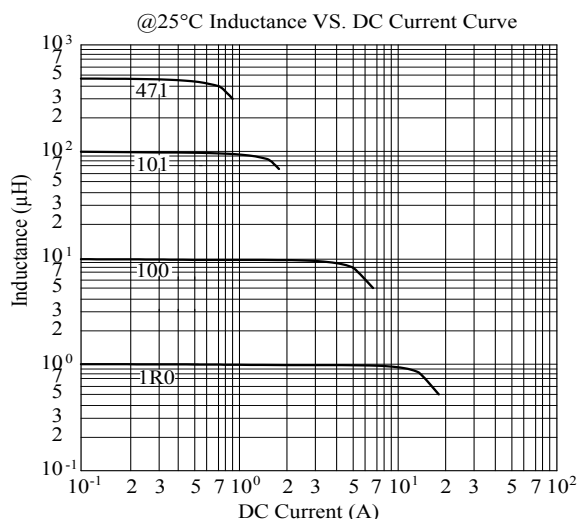


1277 / 1255 / 1040 / 1060 / 6045 / 7045

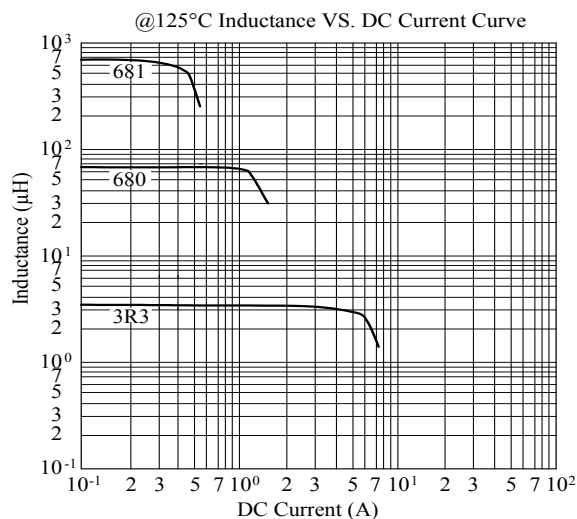
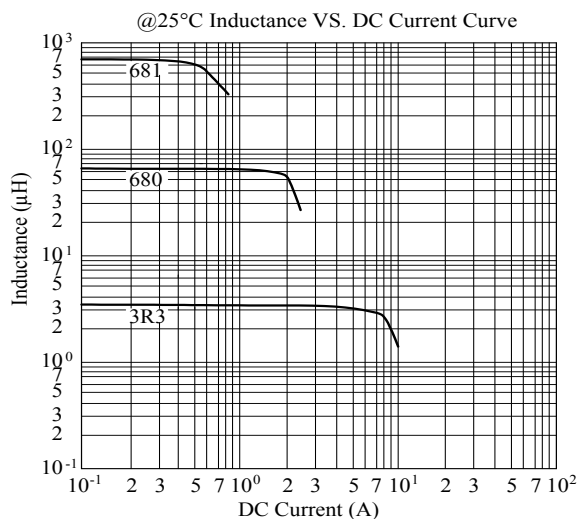
MCU1277 Series



MCU1040 Series

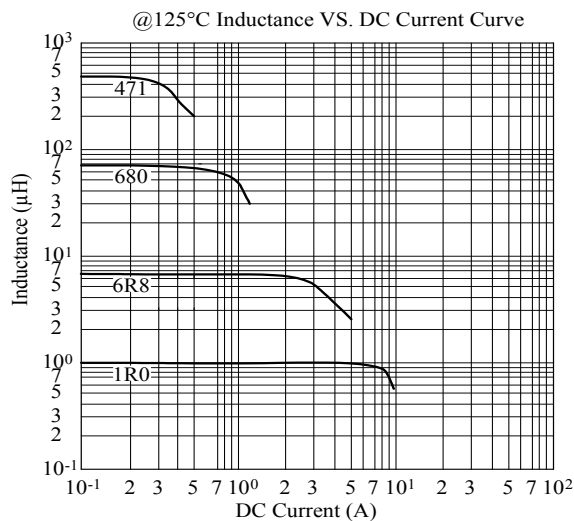
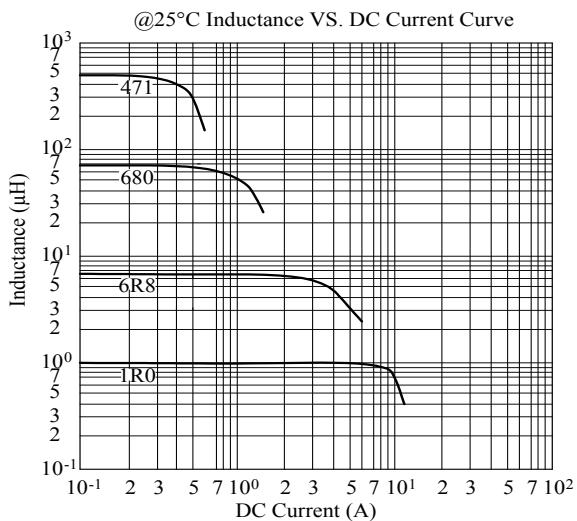


MCU1060 Series

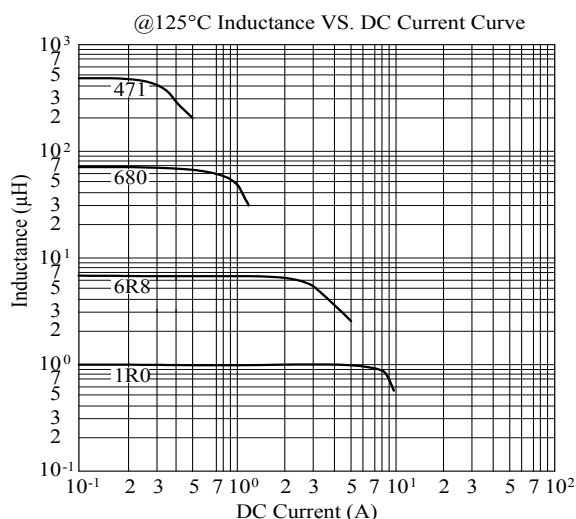
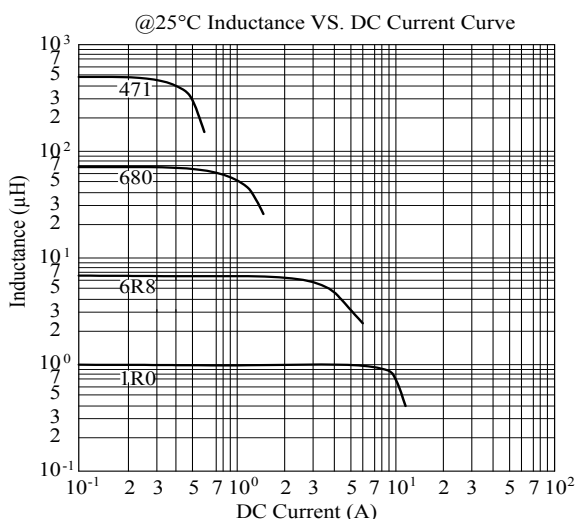


1277 / 1255 / 1040 / 1060 / 6045 / 7045

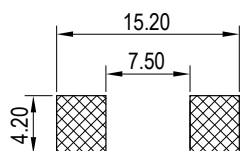
MCU6045 Series



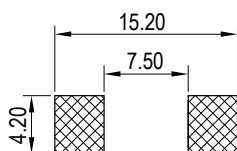
MCU7045 Series



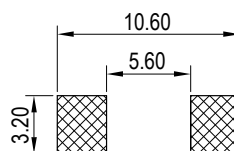
PCB Pattern



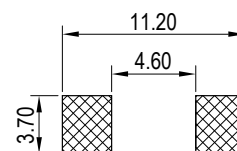
MCU1255



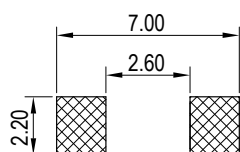
MCU1277



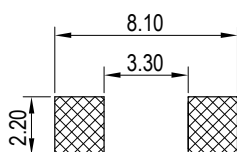
MCU1040



MCU1060



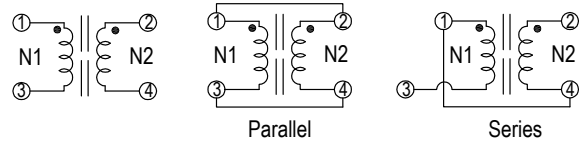
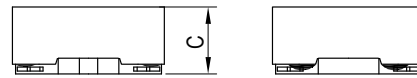
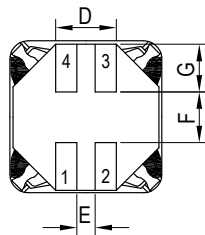
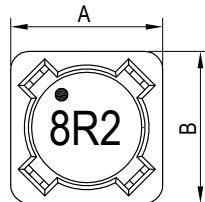
MCU6045



MCU7045

0703

Coupled



For PCB pattern information,
please see page 93

Unit: mm

Series	A	B	C	D	E	F	G
MBF0703	7.60 max.	7.60 max.	3.40±0.20	2.60±0.30	1.00±0.30	2.70±0.30	2.10±0.50

Features

- Bifilar winding with excellent impedance coupling effect
- Reduces radiated EMI emissions
- Dual winding inductors that can be used as either a single inductor, or in coupled inductor/transformer applications (1:1 turns ratio)
- AEC-Q200 Grade 0
- Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- DC-DC converters



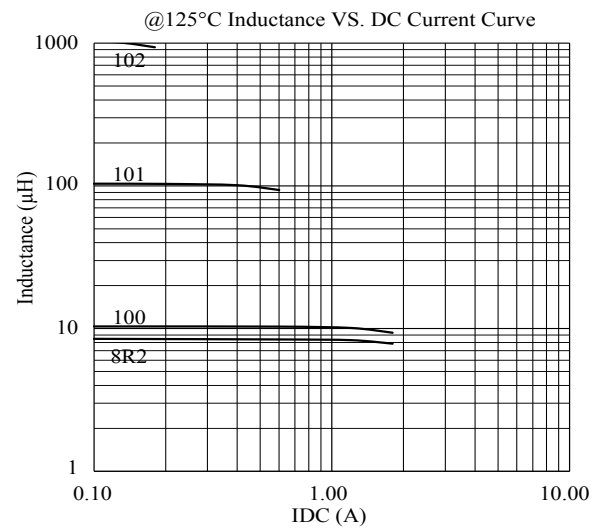
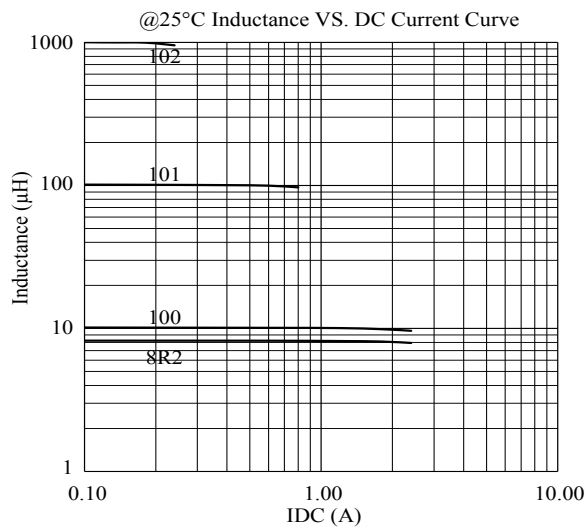
MBF0703 Series

DWG. No.	Parallel Ratings				Series Ratings			
	Inductance (μ H)	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.	Inductance (μ H)	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
MBF07034R7MLB-□□□	4.70 $\pm$ 20%	50.0	3.78	2.70	18.80 $\pm$ 20%	200	1.89	1.350
MBF07038R2MLB-□□□	8.20 $\pm$ 20%	77.2	2.66	2.19	34.10 $\pm$ 20%	306	1.33	1.100
MBF0703100MLB-□□□	10.00 $\pm$ 20%	82.6	2.47	2.08	39.60 $\pm$ 20%	342	1.24	1.040
MBF0703150MLB-□□□	15.00 $\pm$ 20%	119.0	2.05	1.83	59.60 $\pm$ 20%	470	1.03	0.916
MBF0703220MLB-□□□	22.00 $\pm$ 20%	150.0	1.67	1.62	89.50 $\pm$ 20%	620	0.83	0.811
MBF0703330MLB-□□□	33.00 $\pm$ 20%	240.0	1.35	1.31	140.50 $\pm$ 20%	1000	0.68	0.653
MBF0703470MLB-□□□	47.00 $\pm$ 20%	338.0	1.14	1.08	194.20 $\pm$ 20%	1280	0.57	0.542
MBF0703680MLB-□□□	68.00 $\pm$ 20%	507.0	0.96	0.89	289.30 $\pm$ 20%	1920	0.48	0.444
MBF0703820MLB-□□□	82.00 $\pm$ 20%	610.0	0.89	0.86	324.70 $\pm$ 20%	2280	0.44	0.430
MBF0703101MLB-□□□	100.00 $\pm$ 20%	715.0	0.79	0.73	397.60 $\pm$ 20%	2640	0.39	0.367
MBF0703151MLB-□□□	150.00 $\pm$ 20%	986.0	0.65	0.58	608.20 $\pm$ 20%	3630	0.32	0.289
MBF0703221MLB-□□□	220.00 $\pm$ 20%	1480.0	0.53	0.52	922.60 $\pm$ 20%	5500	0.27	0.260
MBF0703331MLB-□□□	330.00 $\pm$ 20%	2160.0	0.44	0.42	1335.00 $\pm$ 20%	8250	0.22	0.211
MBF0703471MLB-□□□	470.00 $\pm$ 20%	2820.0	0.37	0.35	1859.00 $\pm$ 20%	11220	0.18	0.173
MBF0703681MLB-□□□	680.00 $\pm$ 20%	3960.0	0.31	0.29	2930.00 $\pm$ 20%	16170	0.15	0.143
MBF0703821MLB-□□□	820.00 $\pm$ 20%	5010.0	0.28	0.27	3559.00 $\pm$ 20%	20070	0.14	0.134
MBF0703102MLB-□□□	1000.00 $\pm$ 20%	6110.0	0.25	0.26	4120.00 $\pm$ 20%	24420	0.13	0.128

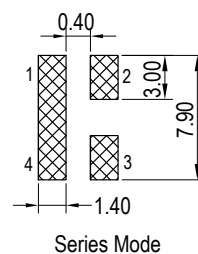
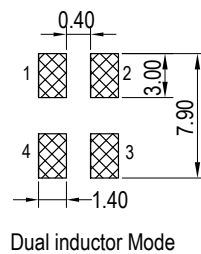
1. Electrical specifications at 25°C
2. L Test Freq.:100kHz / 0.25 V
3. Isat base on $\Delta L/L0A=30\%$ typ.
4. Irms base on Temp. rise 40°C typ.
5. Hi-Pot test (N1-N2) :500Vac / 60Hz , 3mA , 1sec.

0703

MBF0703 Series

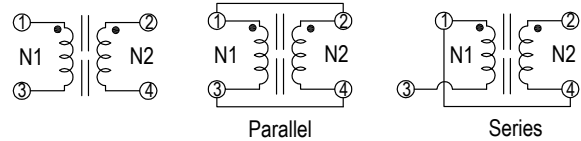
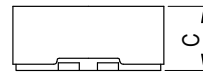
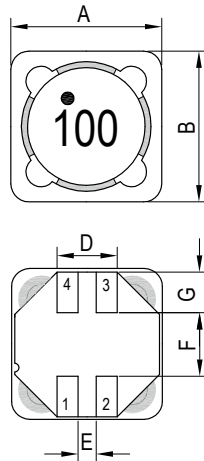


PCB Pattern



1258 / 1278

Coupled



For PCB pattern information,
please see page 97

Unit: mm

Series	A	B	C	D	E	F	G
MSF1258	12.50 max.	12.50 max.	6.00±0.20	5.00±0.30	1.80±0.20	5.00±0.30	3.50±0.50
MSF1278	12.50 max.	12.50 max.	8.00 max.	5.00±0.30	1.80±0.20	5.00±0.30	3.50±0.50

Features

- Bifilar winding with excellent impedance coupling effect
- Reduces radiated EMI emissions
- Dual winding inductors that can be used as either a single inductor, or in coupled inductor/transformer applications (1:1 turns ratio)
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- DC-DC converters



1258 / 1278

MSF1258 Series

DWG. No.	Parallel Ratings				Series Ratings			
	Inductance (μ H)	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.	Inductance (μ H)	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
MSF1258R47YLB-□□□	0.47 $\pm$ 30%	5.3	33.00	17.60	1.824 $\pm$ 30%	21.2	16.500	8.800
MSF12581R0YLB-□□□	1.00 $\pm$ 30%	6.2	23.60	15.00	3.576 $\pm$ 30%	26.0	11.800	7.510
MSF12581R5YLB-□□□	1.50 $\pm$ 30%	7.3	18.30	13.80	5.912 $\pm$ 30%	30.2	9.150	6.890
MSF12582R2YLB-□□□	2.20 $\pm$ 30%	8.5	15.00	10.90	8.832 $\pm$ 30%	33.3	7.500	5.460
MSF12583R3YLB-□□□	3.30 $\pm$ 30%	10.1	12.70	9.26	12.340 $\pm$ 30%	37.2	6.350	4.630
MSF12584R7YLB-□□□	4.70 $\pm$ 30%	13.7	9.71	7.18	21.100 $\pm$ 30%	47.9	4.860	3.590
MSF12586R8YLB-□□□	6.80 $\pm$ 30%	18.6	8.68	6.64	26.350 $\pm$ 30%	67.2	4.340	3.320
MSF12588R2YLB-□□□	8.20 $\pm$ 30%	19.4	7.86	5.54	32.190 $\pm$ 30%	73.7	3.930	2.770
MSF1258100MLB-□□□	10.00 $\pm$ 20%	24.6	7.17	5.35	38.620 $\pm$ 20%	93.4	3.590	2.670
MSF1258120MLB-□□□	12.00 $\pm$ 20%	28.6	6.50	4.50	46.800 $\pm$ 20%	115.0	3.200	2.200
MSF1258150MLB-□□□	15.00 $\pm$ 20%	32.9	5.69	4.27	61.400 $\pm$ 20%	125.0	2.850	2.130
MSF1258220MLB-□□□	22.00 $\pm$ 20%	45.1	4.71	3.70	89.440 $\pm$ 20%	172.0	2.360	1.840
MSF1258330MLB-□□□	33.00 $\pm$ 20%	61.8	3.84	3.28	135.000 $\pm$ 20%	256.0	1.920	1.640
MSF1258470MLB-□□□	47.00 $\pm$ 20%	86.0	3.24	2.71	189.900 $\pm$ 20%	340.0	1.620	1.350
MSF1258680MLB-□□□	68.00 $\pm$ 20%	116.5	2.70	2.22	271.600 $\pm$ 20%	444.0	1.350	1.110
MSF1258820MLB-□□□	82.00 $\pm$ 20%	150.0	2.39	2.05	347.600 $\pm$ 20%	568.0	1.200	1.030
MSF1258101MLB-□□□	100.00 $\pm$ 20%	171.3	2.20	1.78	410.800 $\pm$ 20%	656.0	1.100	0.892
MSF1258151MLB-□□□	150.00 $\pm$ 20%	253.8	1.81	1.48	604.400 $\pm$ 20%	972.0	0.905	0.739
MSF1258221MLB-□□□	220.00 $\pm$ 20%	354.0	1.51	1.19	867.200 $\pm$ 20%	1416.0	0.755	0.594
MSF1258331MLB-□□□	330.00 $\pm$ 20%	574.0	1.22	1.06	1330.000 $\pm$ 20%	2290.0	0.610	0.530
MSF1258471MLB-□□□	470.00 $\pm$ 20%	830.0	1.02	0.87	1892.000 $\pm$ 20%	3197.0	0.510	0.434
MSF1258681MLB-□□□	680.00 $\pm$ 20%	1212.0	0.85	0.70	2719.000 $\pm$ 20%	4635.0	0.425	0.350
MSF1258821MLB-□□□	820.00 $\pm$ 20%	1460.0	0.77	0.60	3312.000 $\pm$ 20%	5363.0	0.385	0.301
MSF1258102MLB-□□□	1000.00 $\pm$ 20%	1854.0	0.70	0.57	4032.000 $\pm$ 20%	6782.0	0.350	0.283

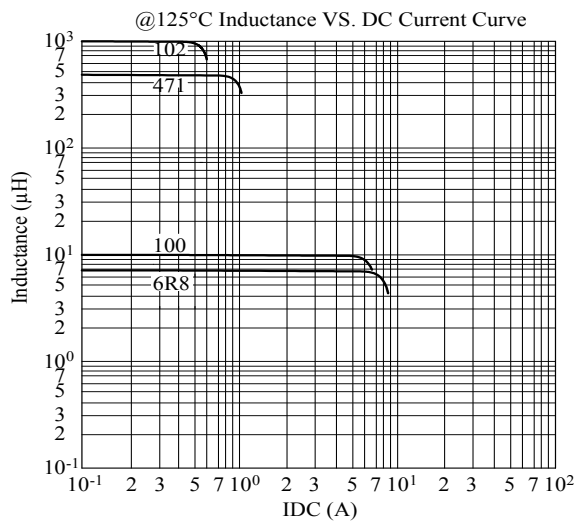
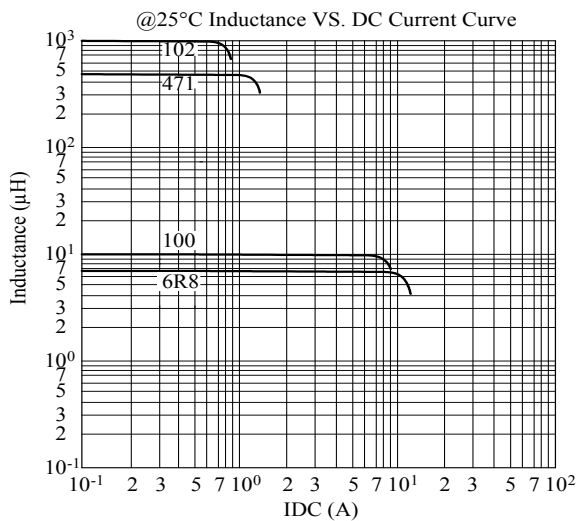
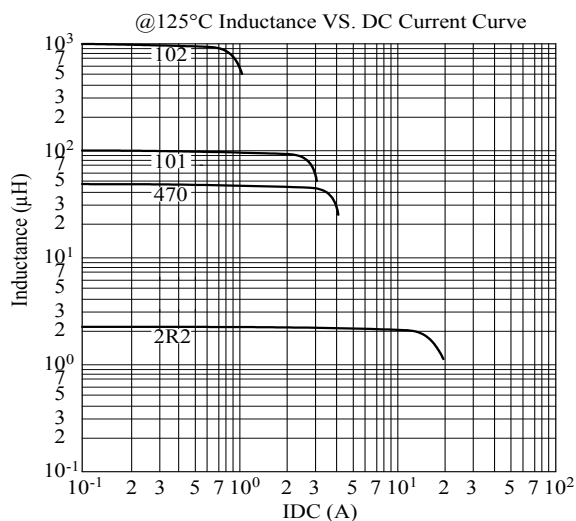
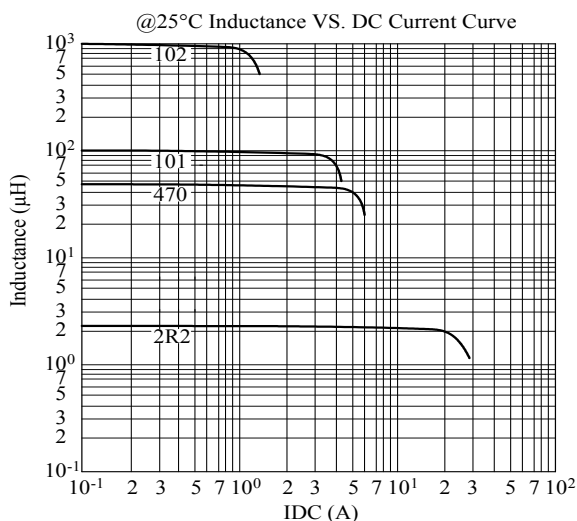
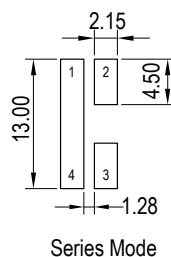
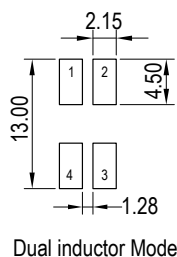
1258 / 1278

MSF1278 Series

DWG. No.	Parallel Ratings				Series Ratings			
	Inductance (μ H)	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.	Inductance (μ H)	RDC (m Ω) max.	Isat (A) typ.	Irms (A) typ.
MSF1278R47YLB-□□□	0.47 $\pm$ 30%	5.5	56.00	17.90	1.676 $\pm$ 30%	21.6	28.000	8.940
MSF12781R0YLB-□□□	1.00 $\pm$ 30%	6.7	40.00	15.50	3.284 $\pm$ 30%	26.0	20.000	7.740
MSF12781R5YLB-□□□	1.50 $\pm$ 30%	7.6	31.10	13.50	5.428 $\pm$ 30%	30.6	15.600	6.770
MSF12782R2YLB-□□□	2.20 $\pm$ 30%	9.2	25.50	12.50	8.108 $\pm$ 30%	33.8	12.700	6.230
MSF12783R3YLB-□□□	3.30 $\pm$ 30%	11.0	21.50	10.40	11.320 $\pm$ 30%	40.0	10.800	5.230
MSF12784R7YLB-□□□	4.70 $\pm$ 30%	13.5	16.50	8.25	19.360 $\pm$ 30%	50.0	8.240	4.130
MSF12786R8YLB-□□□	6.80 $\pm$ 30%	18.3	13.30	7.34	29.550 $\pm$ 30%	65.6	6.670	3.670
MSF12788R2YLB-□□□	8.20 $\pm$ 30%	19.1	12.20	6.32	35.440 $\pm$ 30%	71.4	6.090	3.160
MSF1278100MLB-□□□	10.00 $\pm$ 20%	24.1	11.20	6.04	41.880 $\pm$ 20%	92.1	5.600	3.020
MSF1278150MLB-□□□	15.00 $\pm$ 20%	33.3	9.66	5.03	56.360 $\pm$ 20%	129.0	4.830	2.510
MSF1278220MLB-□□□	22.00 $\pm$ 20%	50.3	7.57	4.00	91.720 $\pm$ 20%	192.0	3.780	2.000
MSF1278330MLB-□□□	33.00 $\pm$ 20%	66.4	6.22	3.23	135.700 $\pm$ 20%	265.0	3.110	1.610
MSF1278470MLB-□□□	47.00 $\pm$ 20%	89.8	5.28	2.95	188.200 $\pm$ 20%	353.0	2.640	1.470
MSF1278680MLB-□□□	68.00 $\pm$ 20%	123.0	4.44	2.44	265.900 $\pm$ 20%	469.0	2.220	1.220
MSF1278820MLB-□□□	82.00 $\pm$ 20%	153.0	4.06	2.09	319.000 $\pm$ 20%	578.0	2.030	1.040
MSF1278101MLB-□□□	100.00 $\pm$ 20%	175.0	3.64	1.96	397.200 $\pm$ 20%	701.0	1.820	0.980
MSF1278151MLB-□□□	150.00 $\pm$ 20%	261.0	3.01	1.59	579.600 $\pm$ 20%	1013.0	1.510	0.796
MSF1278221MLB-□□□	220.00 $\pm$ 20%	343.0	2.43	1.29	886.000 $\pm$ 20%	1380.0	1.220	0.645
MSF1278331MLB-□□□	330.00 $\pm$ 20%	540.0	2.01	1.04	1294.000 $\pm$ 20%	2172.0	1.010	0.522
MSF1278471MLB-□□□	470.00 $\pm$ 20%	865.0	1.68	0.85	1868.000 $\pm$ 20%	3300.0	0.838	0.427
MSF1278681MLB-□□□	680.00 $\pm$ 20%	1296.0	1.39	0.76	2707.000 $\pm$ 20%	4888.0	0.697	0.380
MSF1278821MLB-□□□	820.00 $\pm$ 20%	1632.0	1.27	0.65	3272.000 $\pm$ 20%	5896.0	0.633	0.325
MSF1278102MLB-□□□	1000.00 $\pm$ 20%	1992.0	1.14	0.61	4020.000 $\pm$ 20%	7202.0	0.571	0.307

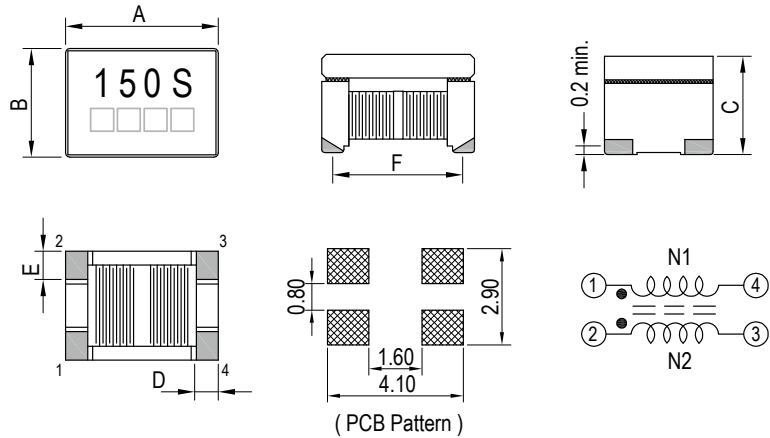
1. Electrical specifications at 25°C
2. Inductance Test Condition.: 100kHz / 0.25V
3. Isat base on $\Delta L/L0A=30\%$ typ.
4. I rms base on Temp. rise 40°C typ.
5. Hi-Pot test (N1-N2): 500Vac / 60Hz , 3mA , 1sec.

1258 / 1278

MSF1258 Series

MSF1278 Series

PCB Pattern


3225-S / 3225-B

Data Line EMI Solution



Unit: mm

Series	A	B	C	D	E	F
MSF3225-S	3.20±0.20	2.50±0.20	2.40 max.	0.60 ref.	0.65 ref.	2.60 ref.
MSF3225-B	3.20±0.20	2.50±0.20	2.40 max.	0.60 ref.	0.65 ref.	2.60 ref.

Features

- Low profile to 2.4mm
- Automatic bifilar winding & core assembly
excellent impedance coupling effect
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C
(including self-temperature rise)

Application

- CAN-BUS (MSF3225-B)
- PoE (MSF3225-S)



3225-S / 3225-B

MSF3225-S Series

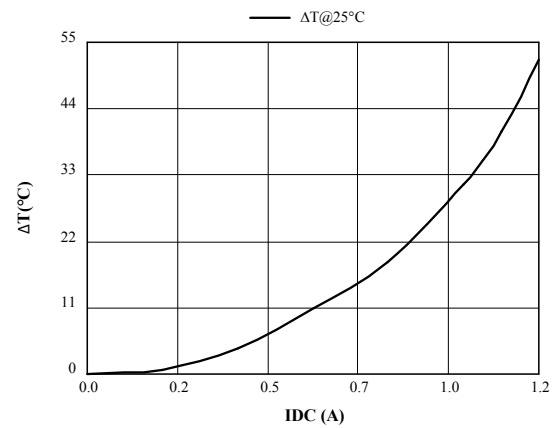
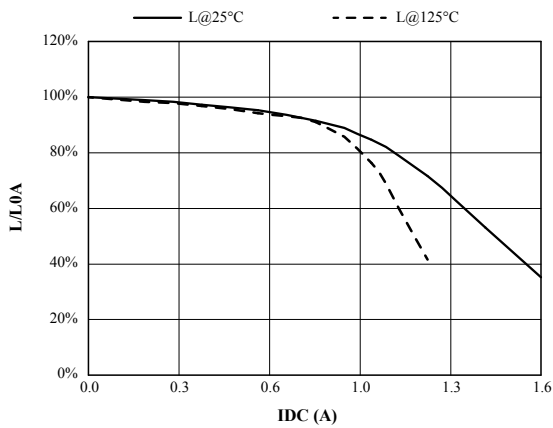
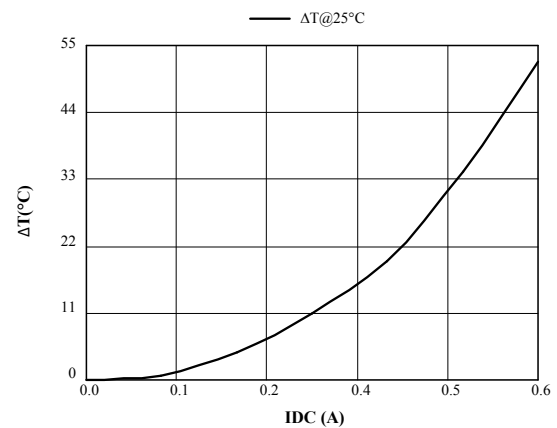
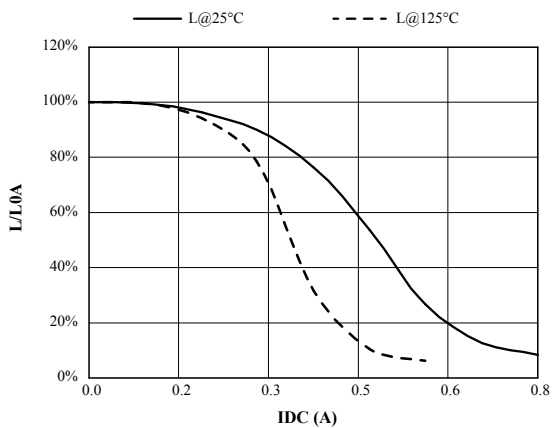
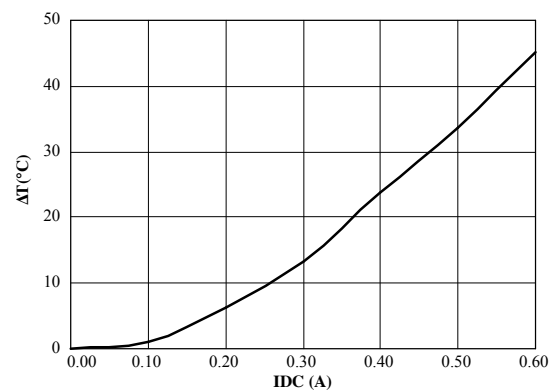
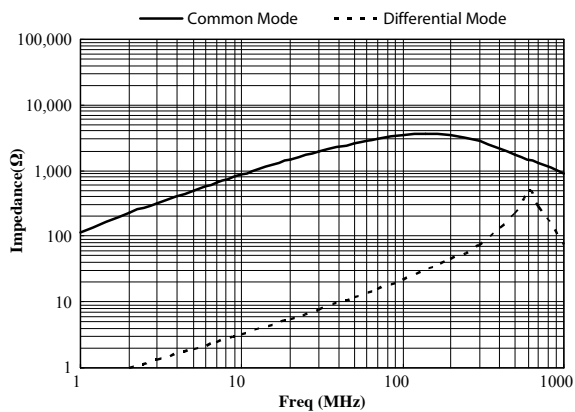
DWG. No.	Inductance (μ H)	Lstray (μ H) typ.	RDC (Ω) max.	Isat (A)	Irms (A)
MSF32252R2YSB-□□□	2.2 $\pm$ 20%	0.10	0.36	1.00	1.20
MSF3225150YSB-□□□	15.0 $\pm$ 20%	0.20	0.80	0.35	0.70

1. Electrical specifications at 25°C
2. Inductance Test Condition.: 100kHz / 0.1V
3. IDC base on Temp. rise 40°C max.
4. Insulation resistance: 10M Ω min.@50Vdc
5. Rated voltage: 50Vdc
6. Isat base on ΔL / L0A=30% max.

MSF3225-B Series

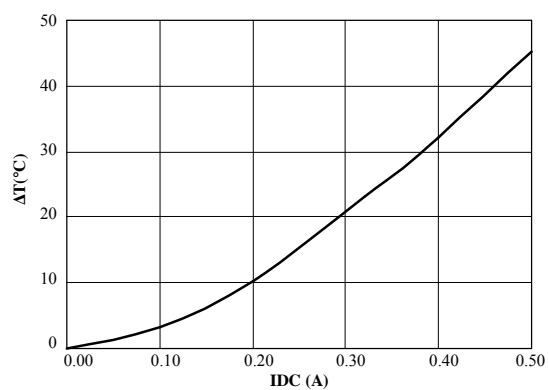
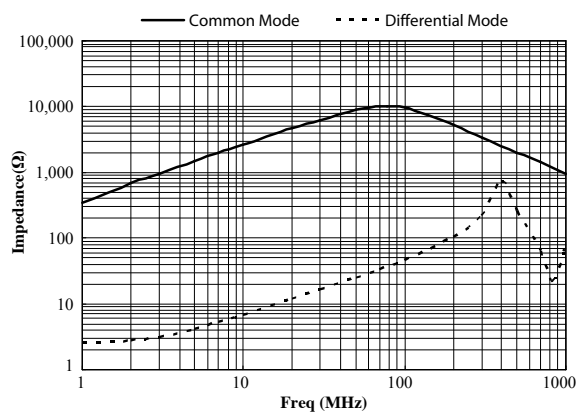
DWG. No.	Inductance (μ H)	Lstray (μ H) typ.	RDC (Ω) max.	IDC (A)	Common mode impedance ($k\Omega$) (@10MHz)	
					typ	min.
MSF3225220YBB-□□□	22 $\pm$ 50%	0.10	0.40	0.40	0.80	0.40
MSF3225510YBB-□□□	51 $\pm$ 50%	0.20	1.50	0.30	2.60	1.30
MSF3225101YBB-□□□	100 $\pm$ 50%	0.30	3.30	0.15	5.20	2.60

1. Electrical specifications at 25°C
2. Inductance Test Condition.: 100kHz / 0.1V
3. IDC base on Temp. rise 40°C max.
4. Insulation resistance: 10M Ω min. @50Vdc
5. Rated voltage: 50Vdc

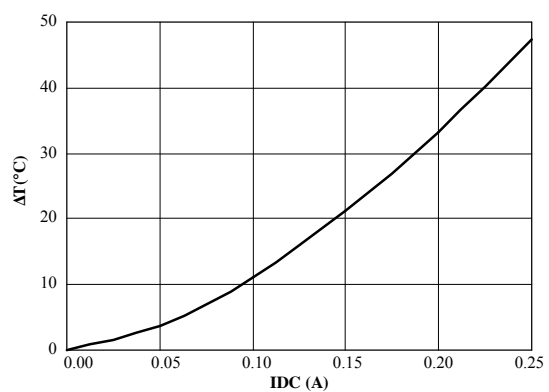
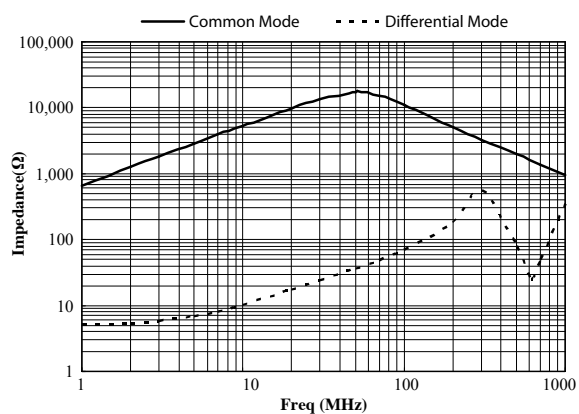
3225-S / 3225-B
MSF32252R2YSB

MSF3225150YSB

MSF3225220YB□


3225-S / 3225-B

MSF3225510YB□

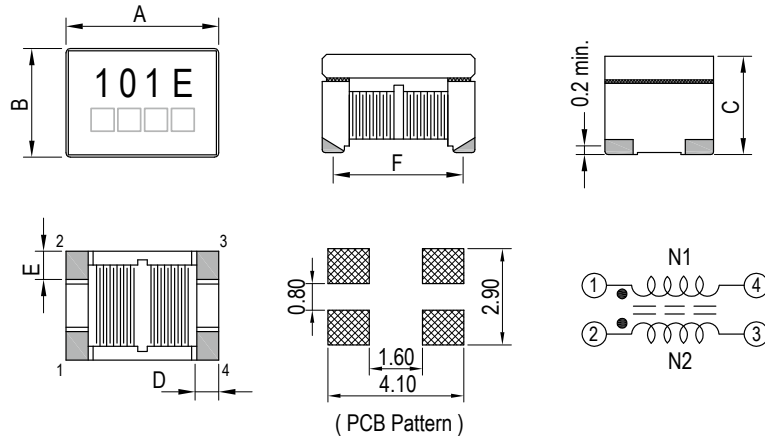
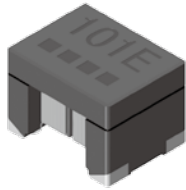


MSF3225101YB□



3425-E / 3425-D / 3425-B

Data Line EMI Solution



Unit: mm

Series	A	B	C	D	E	F
MSF3425-E	3.40±0.20	2.50±0.20	2.40 max.	0.60 ref.	0.65 ref.	2.80 ref.
MSF3425-D	3.40±0.20	2.50±0.20	2.40 max.	0.60 ref.	0.65 ref.	2.80 ref.
MSF3425-B	3.40±0.20	2.50±0.20	2.40 max.	0.60 ref.	0.65 ref.	2.80 ref.

Features

- Low profile to 2.4mm
- Automatic bifilar winding & core assembly excellent impedance coupling effect
- AEC-Q200 Grade 1: MSF3425-D / MSF3425-B
- MSF3425-D / MSF3425-B:
Operating temp: -40°C ~ +125°C
(including self-temperature rise)
- AEC-Q200 Grade 0: MSF3425-E
- MSF3425-E Operating temp: -55°C ~ +155°C
(including self-temperature rise)

Application

- Ethernet (MSF3425-E)
- CAN FD (MSF3425-D)
- 100 Base-T1 (MSF3425-B)



3425-E / 3425-D / 3425-B

MSF3425-E Series

DWG. No.	Inductance (μ H)	Lstray (μ H) typ.	RDC (Ω) max.	IDC (A)	Common mode impedance ($k\Omega$) (@10MHz)	
					typ	min.
MSF3425510YEB-□□□	51 $\pm$ 50%	0.32	1.10	0.40	2.80	1.40
MSF3425101YEB-□□□	100 $\pm$ 50%	0.60	3.00	0.20	5.50	2.00

MSF3425-D Series

DWG. No.	Inductance (μ H)	Lstray (μ H) typ.	RDC (Ω) max.	IDC (A) max.	Common mode impedance ($k\Omega$) (@10MHz)	
					min.	typ.
MSF3425510YDB-□□□	51.0 +50% -30%	0.20	1.20	0.60	1.25	2.50
MSF3425101YDB-□□□	100.0 +50% -30%	0.35	3.20	0.35	2.50	5.20
MSF3425131YDB-□□□	130.0 +50% -30%	0.35	3.50	0.30	3.00	6.10

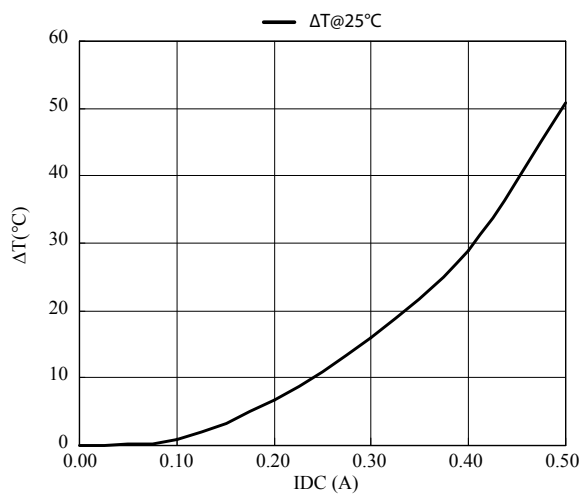
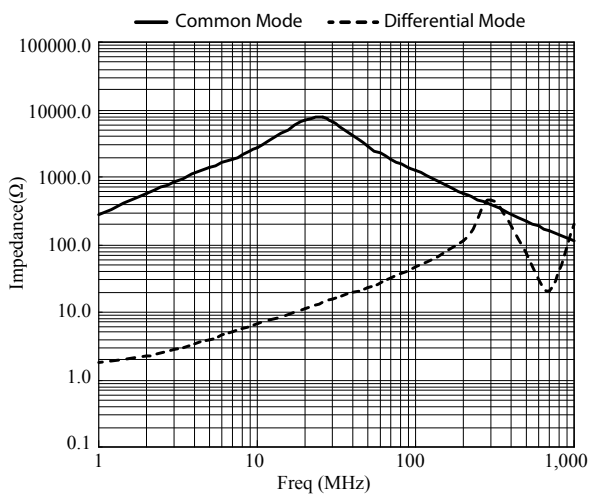
MSF3425-B Series

DWG. No.	Inductance (μ H)	Lstray (μ H) typ.	RDC (Ω) max.	IDC (A) max.	Common mode impedance ($k\Omega$) (@10MHz)	
					min.	typ.
MSF3425201YBB-□□□	200.0 +50% -30%	0.50	5.50	0.25	4.00	8.50

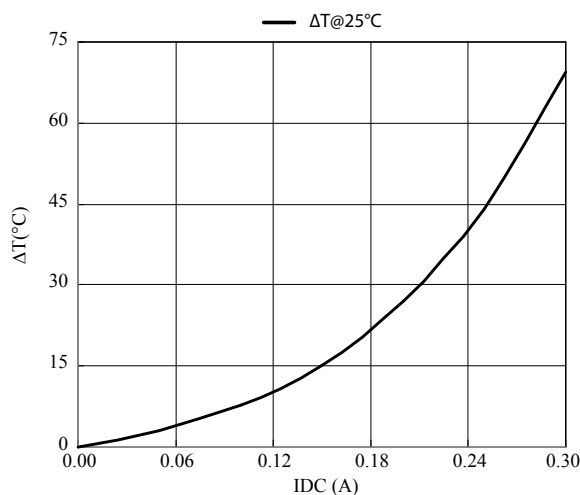
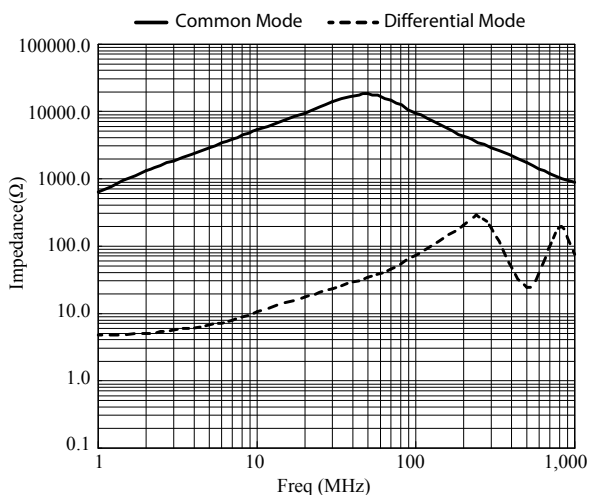
1. Electrical specifications at 25°C
2. Inductance Test Condition.: 100kHz / 0.1V
3. IDC base on Temp. rise 40°C max.
4. Insulation resistance: 10M Ω min. @50Vdc
5. Rated voltage: 50Vdc

3425-E / 3425-D / 3425-B

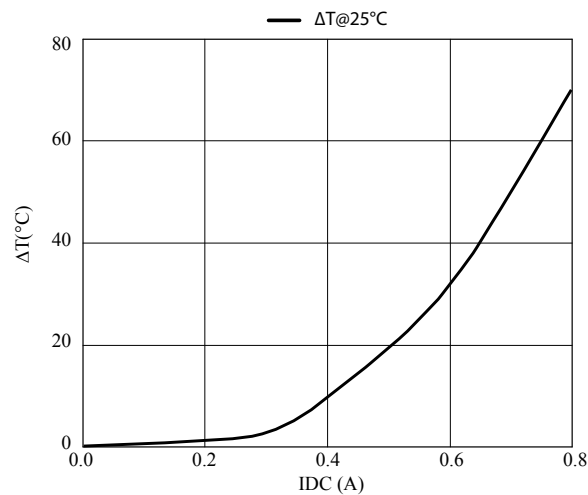
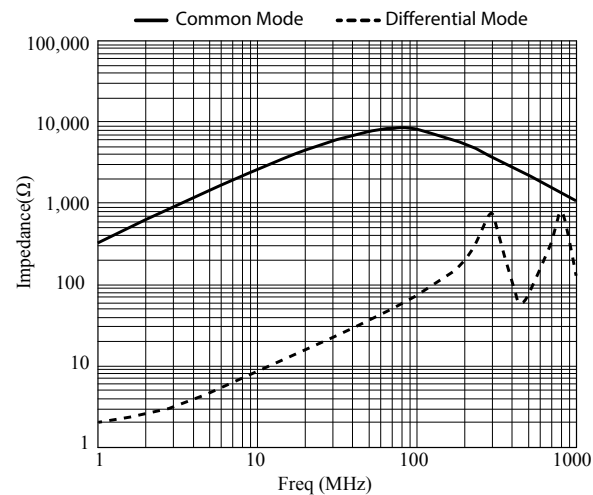
MSF3425510YEB

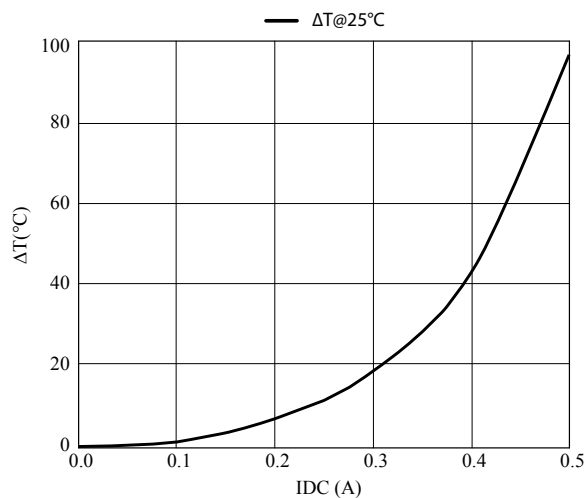
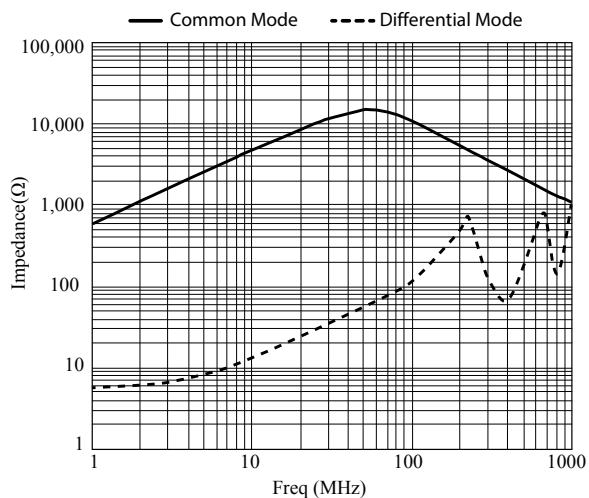
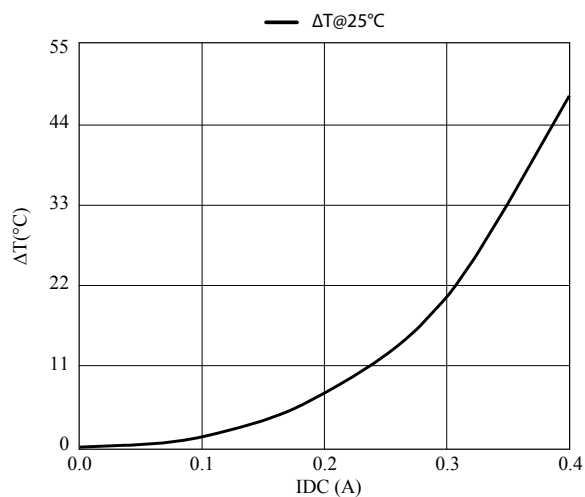
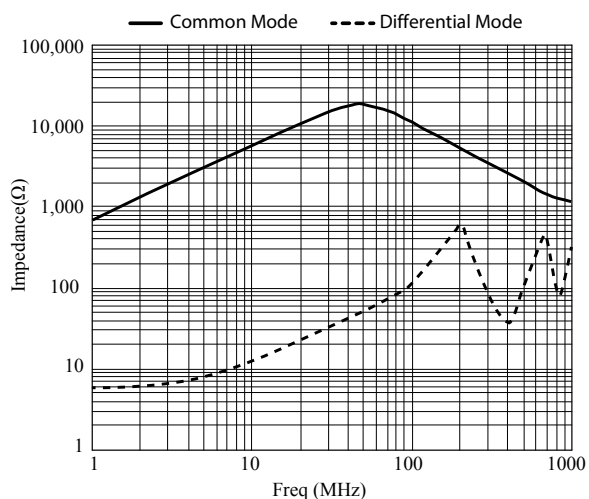
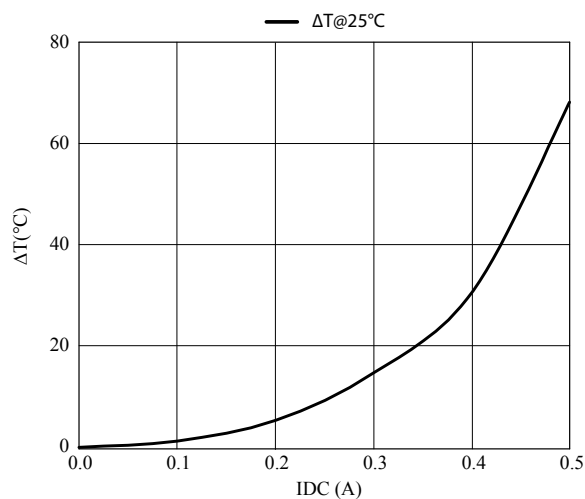
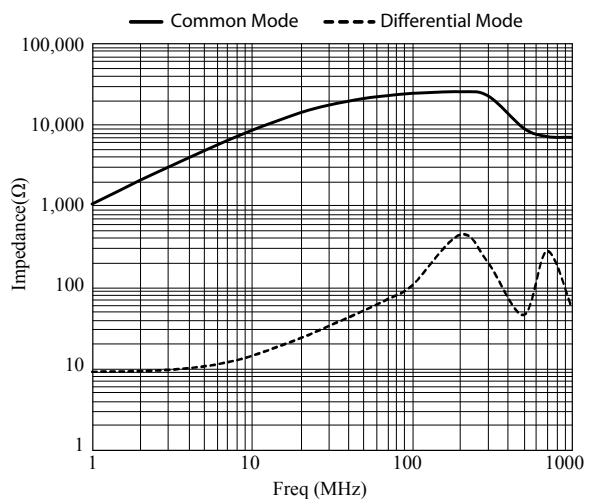


MSF3425101YEB



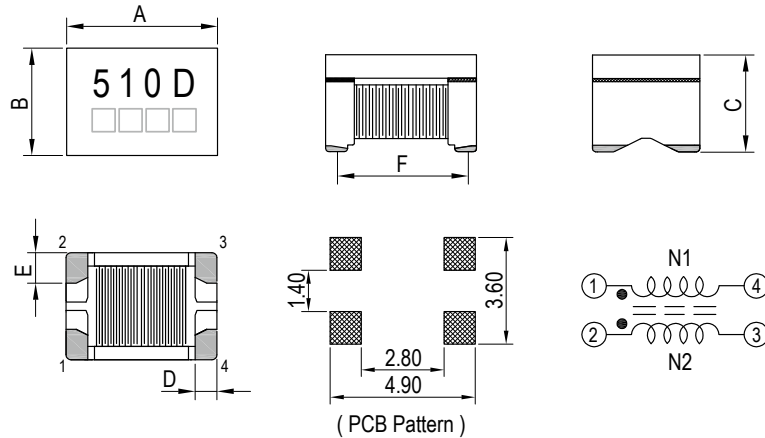
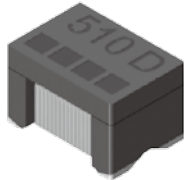
MSF3425510YDB



3425-E / 3425-D / 3425-B
MSF3425101YDB

MSF3425131YDB

MSF3425201YBB


4532-D

Data Line EMI Solution



Unit: mm

Series	A	B	C	D	E	F
MSF4532-D	4.50±0.20	3.20±0.20	3.00±0.20	0.70 ref.	0.65 ref.	3.80 ref.

Features

- Automatic bifilar winding & core assembly excellent impedance coupling effect
- AEC-Q200 Grade 2
- Operating temp: -40°C ~ +105°C (including self-temperature rise)

Application

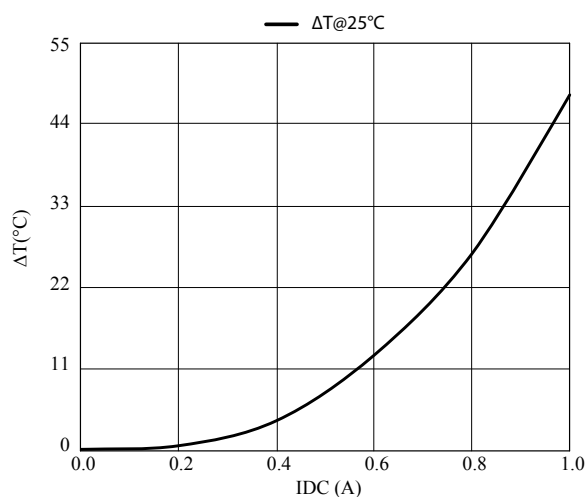
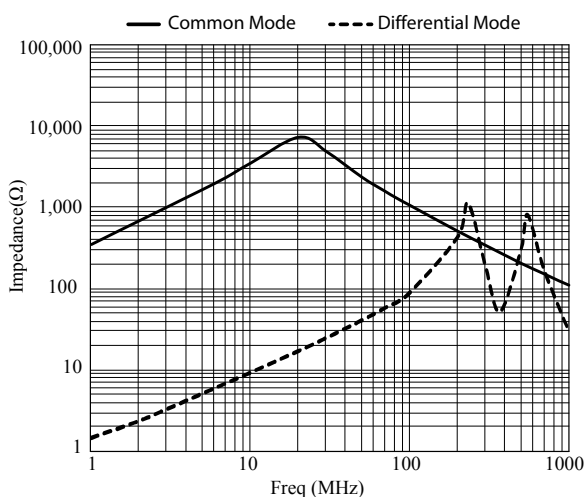
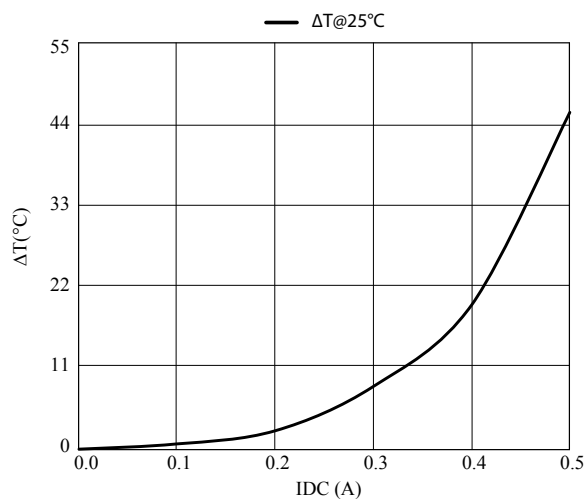
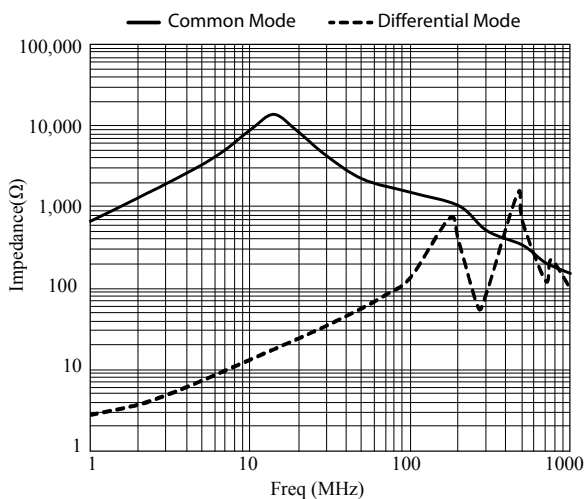
- CAN FD



4532-D
MSF4532-D Series

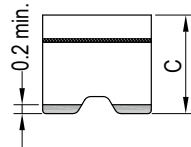
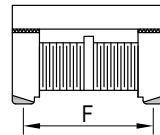
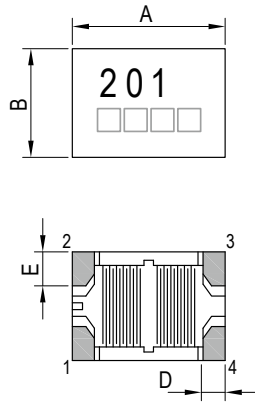
DWG. No.	Inductance (μ H)	C (pF) max.	RDC (Ω) max.	IDC (A) max.	Common mode impedance ($k\Omega$) (@10MHz)	
					min.	typ.
MSF4532510YD□-□□□	51.0 +50% -30%	12.0	0.55	1.00	1.70	2.80
MSF4532101YD□-□□□	100.0 +50% -30%	12.0	1.00	0.50	3.80	6.20

1. Electrical specifications at 25°C
2. Inductance Test Condition.: 100kHz / 0.1V
3. IDC base on Temp. rise 40°C max.
4. Insulation resistance: 10M Ω min. @50Vdc
5. Rated voltage: 50Vdc

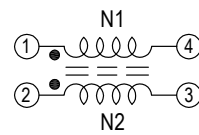
MSF4532510YD□

MSF4532101YD□


4532-E / 4532-C

Data Line EMI Solution



For PCB pattern information,
please see page 111



Unit: mm

Series	A	B	C	D	E	F
ASF4532-E	4.50±0.20	3.20±0.20	3.00±0.20	0.70 ref.	1.00 ref.	3.80 ref.
ASF4532-C	4.50±0.20	3.20±0.20	3.00±0.20	0.70 ref.	0.65 ref.	3.80 ref.

Features

- Automatic bifilar winding & core assembly excellent impedance coupling effect
- AEC-Q200 Grade 1: ASF4532-E
- ASF4532-E: Operating temp: -40°C ~ +125°C (including self-temperature rise)
- AEC-Q200 Grade 0: ASF4532-C
- ASF4532-C: Operating temp: -55°C ~ +150°C (including self-temperature rise)

Application

- Ethernet (ASF4532-E)
- CAN Bus (ASF4532-C)



4532-E / 4532-C

ASF4532-E Series

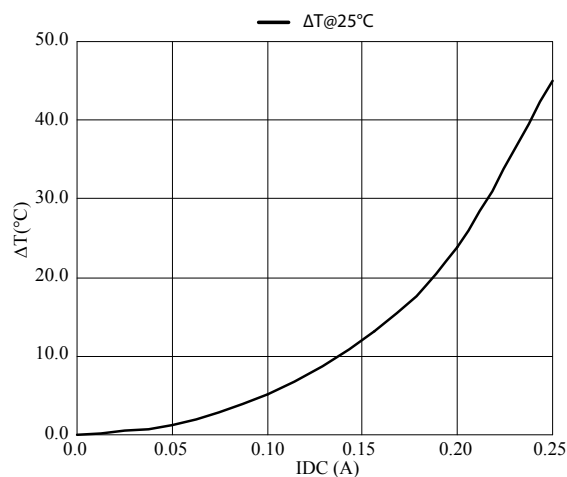
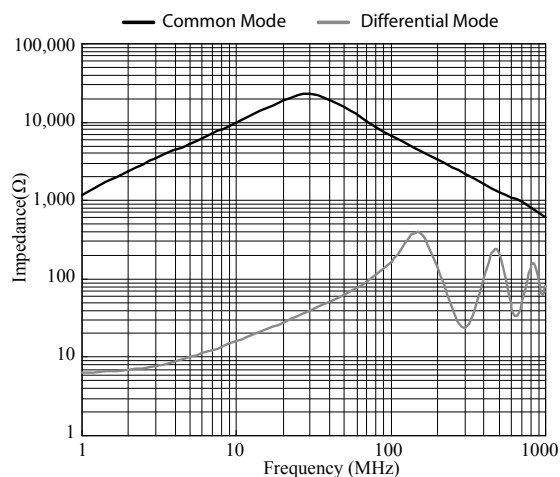
DWG. No.	Inductance (μH)	Lstray (μH) typ.	RDC (Ω) max.	IDC (A)	Common mode impedance (kΩ) (@10MHz)	
					min.	typ.
ASF4532201YEB-□□□	200±50%	0.45	4.50	0.11	4.50	10.0

ASF4532-C Series

DWG. No.	Inductance (μH)	Lstray (μH) typ.	RDC (Ω) max.	IDC (A) max.	Common mode impedance (kΩ) (@10MHz)	
					min.	typ.
ASF4532110YC□-□□□	11.0 +50% -30%	0.10	0.50	0.36	0.30	0.60
ASF4532220YC□-□□□	22.0 +50% -30%	0.15	0.60	0.31	0.60	1.20
ASF4532510YC□-□□□	51.0 +50% -30%	0.30	1.00	0.23	1.50	3.50
ASF4532101YC□-□□□	100.0 +50% -30%	0.35	1.50	0.20	3.00	7.50

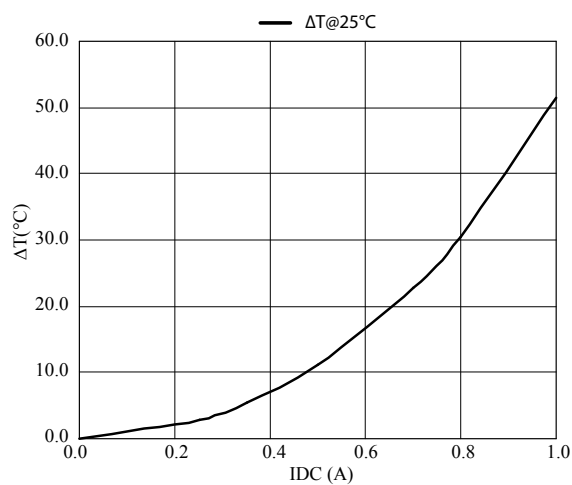
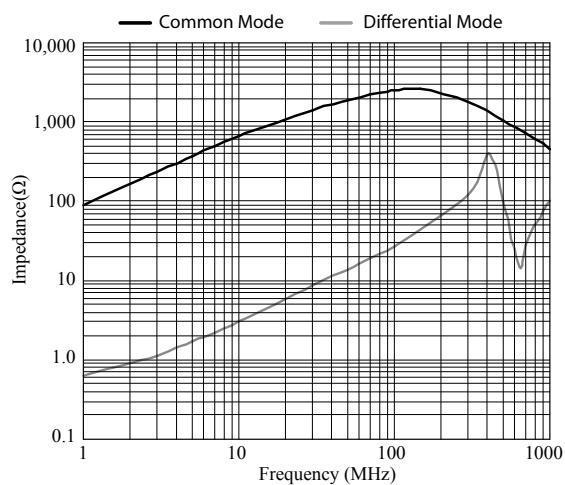
1. Electrical specifications at 25°C
2. Inductance Test Condition.: 100kHz / 0.1V
3. IDC base on Temp. rise 40°C max.
4. Insulation resistance: 10MΩ min. @50Vdc
5. Rated voltage: 50Vdc

ASF4532201YEB

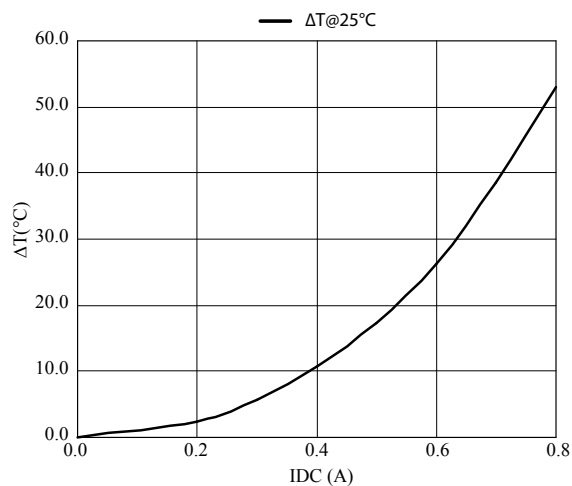
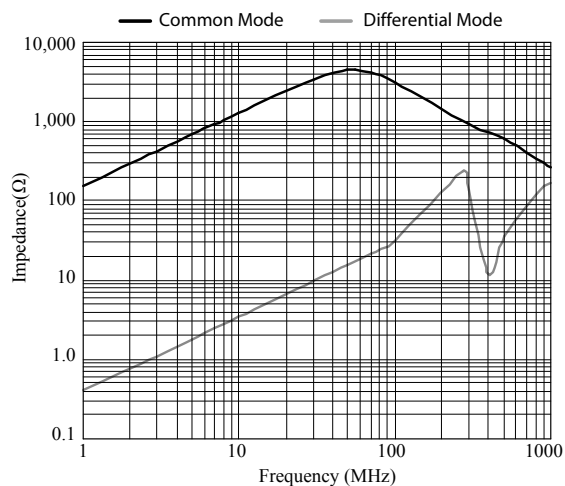


4532-E / 4532-C

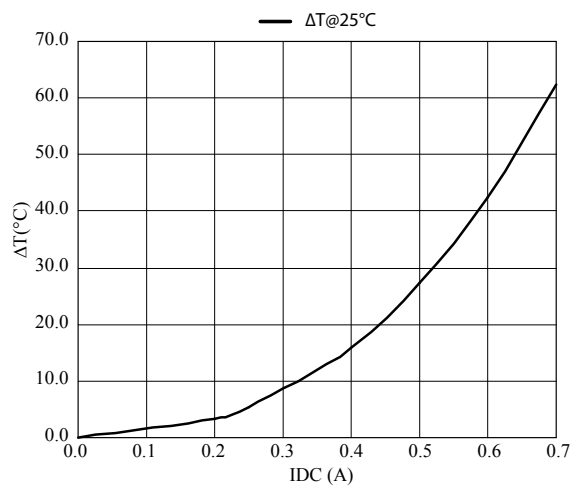
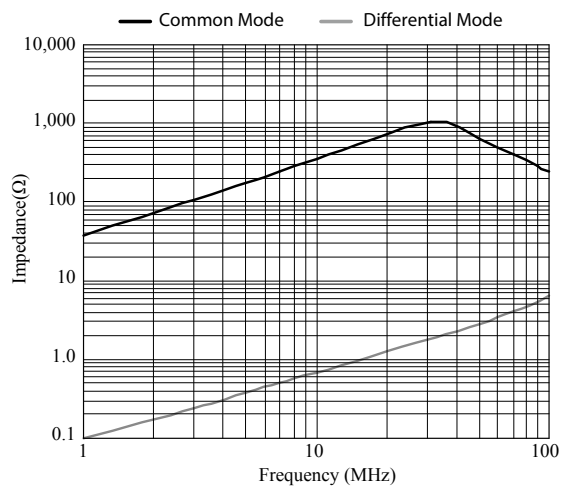
ASF4532110YC□



ASF4532220YC□

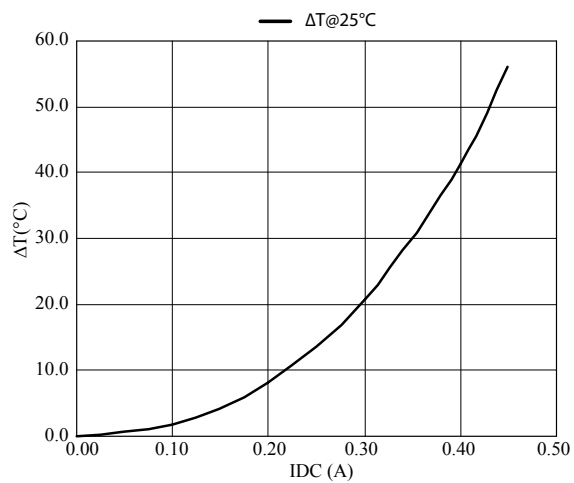
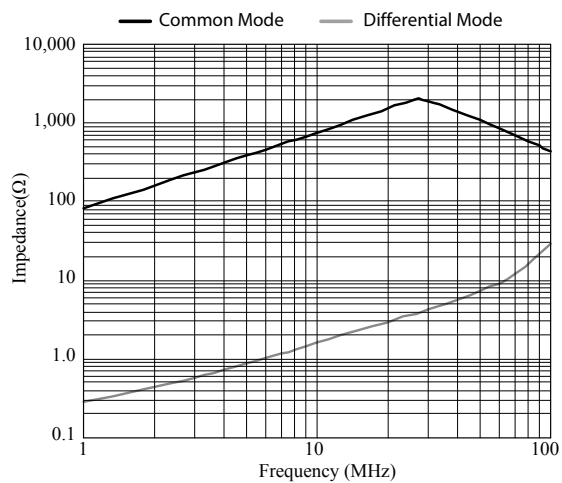


ASF4532510YC□

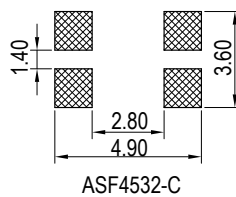
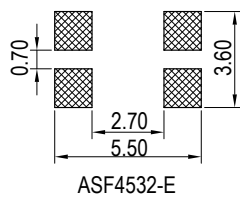


4532-E / 4532-C

ASF4532101YC□

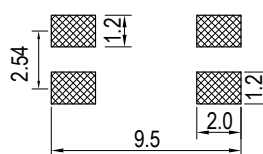
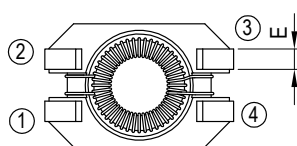
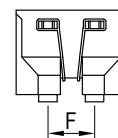
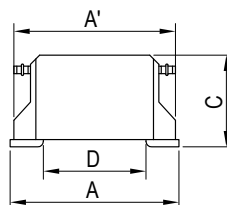
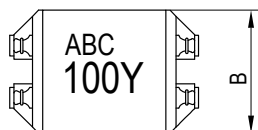
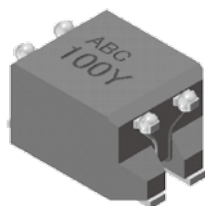


PCB Pattern

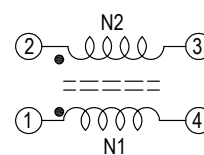


9050

Data Line



(PCB Pattern)



Unit: mm

Series	A	A'	B	C	D	E	F
MSF9050	9.20±0.30	8.70±0.30	6.00±0.30	5.00±0.30	5.60±0.30	1.00±0.10	2.54 ref.

Features

- Reduces radiated EMI emissions
- AEC-Q200 Grade 2
- Operating temp: -40°C ~ +105°C (including self-temperature rise)

Application

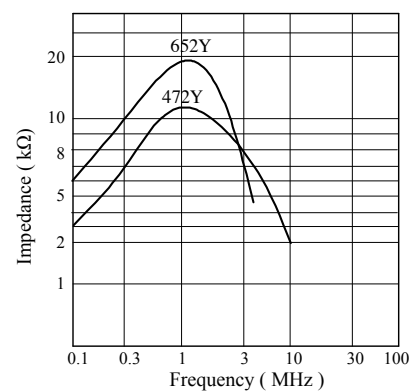
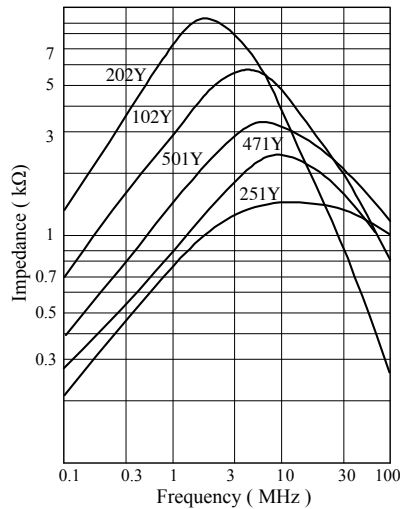
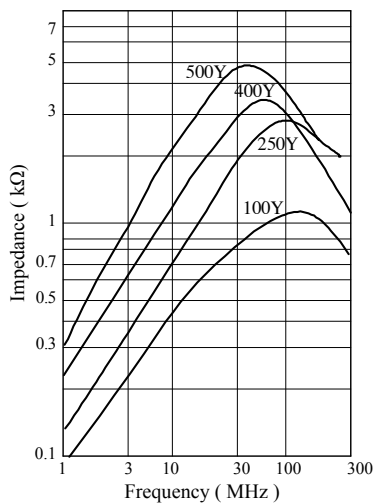
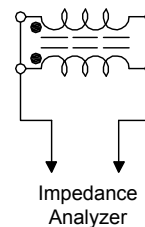
- Suited for LAN and Telecom Applications



MSF9050 Series

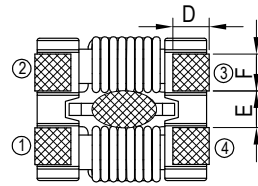
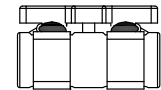
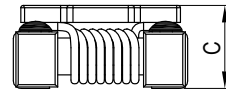
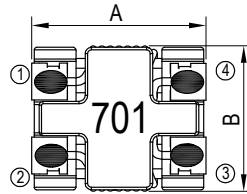
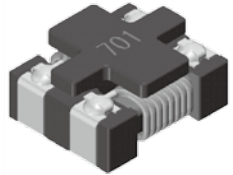
DWG. No.	Inductance L1 , L2 (μ H)	Test condition	DC Resistance N1 , N2 (Ω)	Nominal Voltage Vdc (V)	Rated current (A)	Impedance (Ω)	Freq. Range (MHz)
MSF9050100YSB-□□□	10 $\pm$ 30%	0.1V,1kHz	0.08 max.	80	1.6	200 min.	20 ~ 300
MSF9050250YSB-□□□	25 $\pm$ 30%	0.1V,1kHz	0.16 max.	80	1.0	600 min.	20 ~ 150
MSF9050400YSB-□□□	40 $\pm$ 30%	0.1V,1kHz	0.25 max.	80	0.9	800 min.	20 ~ 100
MSF9050500YSB-□□□	50 $\pm$ 30%	0.1V,1kHz	0.32 max.	80	0.8	1500 min.	20 ~ 100
MSF9050251YSB-□□□	250 $\pm$ 50%	5mV,100kHz	0.13 max.	80	1.2	600 min.	3 ~ 20
MSF9050471YSB-□□□	470 $\pm$ 50%	5mV,100kHz	0.14 max.	80	1.1	1000 min.	2 ~ 20
MSF9050501YSB-□□□	500 $\pm$ 50%	5mV,100kHz	0.15 max.	80	1.0	1000 min.	1 ~ 20
MSF9050102YSB-□□□	1000 $\pm$ 50%	5mV,100kHz	0.31 max.	80	0.8	1500 min.	1 ~ 15
MSF9050202YSB-□□□	2000 $\pm$ 50%	5mV,100kHz	0.42 max.	80	0.6	3000 min.	1 ~ 5
MSF9050472YSB-□□□	4700 $\pm$ 50%	5mV,100kHz	0.90 max.	80	0.4	4000 min.	0.3 ~ 3
MSF9050652YSB-□□□	6500 $\pm$ 50%	5mV,100kHz	1.05 max.	80	0.3	5000 min.	0.3 ~ 2

- Electrical specifications at 25°C
- Irms base on Temp. rise 45°C max.
- Hi-Pot test (N1-N2) : 500Vac / 60Hz , 3mA , 3sec.

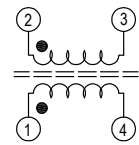
MSF9050 Series

Measuring circuit :


7035 / 9045 / 1260

Power Line EMI Solution



For PCB pattern information,
please see page 118



Unit: mm

Series	A	B	C	D	E	F
AQF7035	7.00±0.20	6.00±0.20	3.50 max.	1.50±0.20	1.70±0.20	1.30±0.20
AQF9045	9.00±0.20	7.00±0.20	4.50 max.	1.50±0.20	2.20±0.20	1.30±0.20
AQF1260	12.00±0.30	11.00±0.30	6.00 max.	2.30±0.20	2.70±0.20	2.50±0.20

Features

- Reducing power noise for good performance.
- Low profile for SMD type.
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C
(including self-temperature rise)

Application

- Power lines noise against for automotive applications.



7035 / 9045 / 1260

AQF7035 Series

DWG. No.	Impedance (Ω)		Test freq. (MHz)	L1, L2 (μ H) ref.	RDC1, RDC2 (m Ω) max.	IDC (A) max.
	min.	typ.				
AQF7035301YSB-□□□	225	300	100	4.00	10.00	5.00
AQF7035701YSB-□□□	500	700	100	7.00	15.00	4.00
AQF7035102YSB-□□□	600	1000	100	7.90	23.00	3.00
AQF7035132YSB-□□□	910	1300	100	10.40	25.00	2.50
AQF7035302YSB-□□□	1800	3000	100	22.60	72.00	1.20

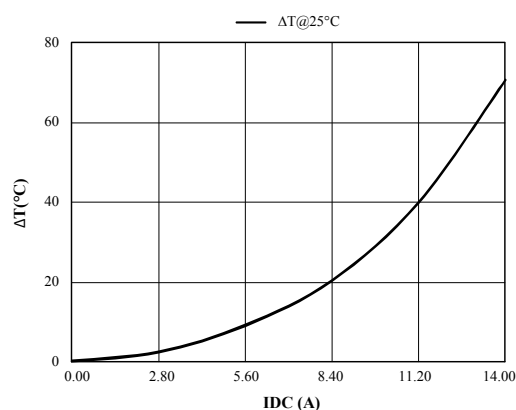
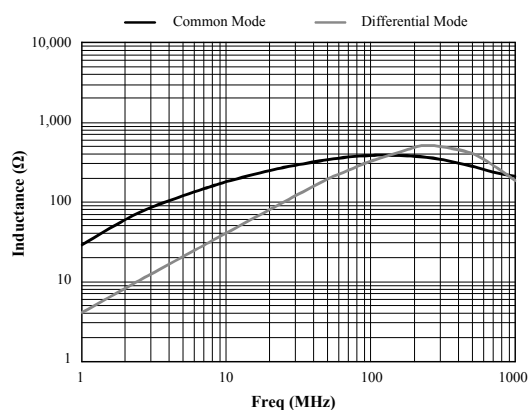
AQF9045 Series

DWG. No.	Impedance (Ω)		Test freq. (MHz)	L1, L2 (μ H) ref.	RDC1, RDC2 (m Ω) max.	IDC (A) max.
	min.	typ.				
AQF9045701YSB-□□□	500	700	100	7.50	10.00	5.00

AQF1260 Series

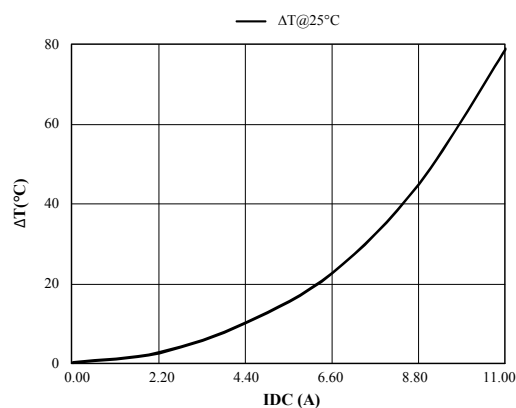
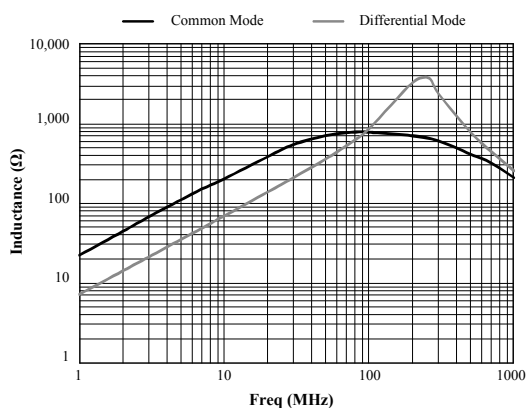
DWG. No.	Impedance (Ω)		Test freq. (MHz)	L1, L2 (μ H) ref.	RDC1, RDC2 (m Ω) max.	IDC (A) max.
	min.	typ.				
AQF1260501YSB-□□□	350	700	100	6.00	4.50	10.00
AQF1260701YSB-□□□	500	700	100	9.00	6.00	8.00
AQF1260102YSB-□□□	750	1000	100	12.50	14.00	6.00
AQF1260172YSB-□□□	1100	1700	100	17.00	21.00	4.80

1. Electrical specifications at 25°C
2. Nominal voltage : 80Vdc
3. Inductance Test condition : 100kHz /0.1V
4. IDC base on temp. rise : 40°C max.
5. Insulation Resistance 10M Ω min.@100Vdc
6. Hi-pot test (N1 to N2) : 500Vac , 3mA , 1sec.

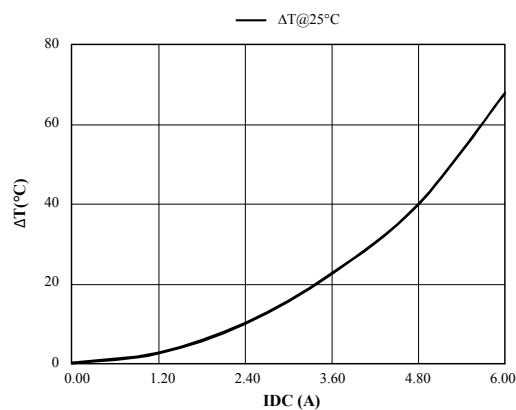
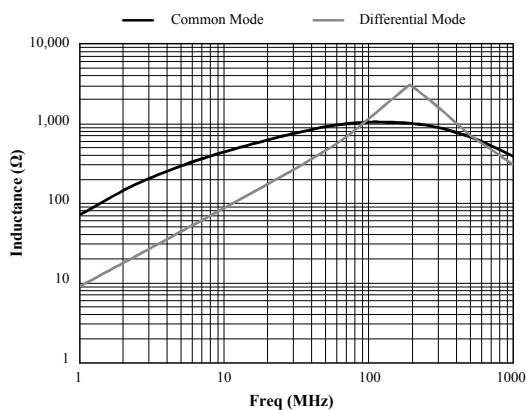
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7035 / 9045 / 1260

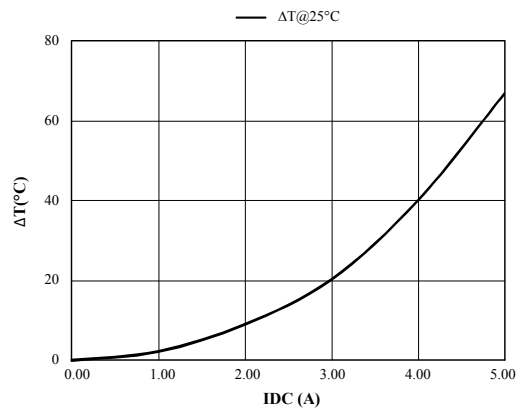
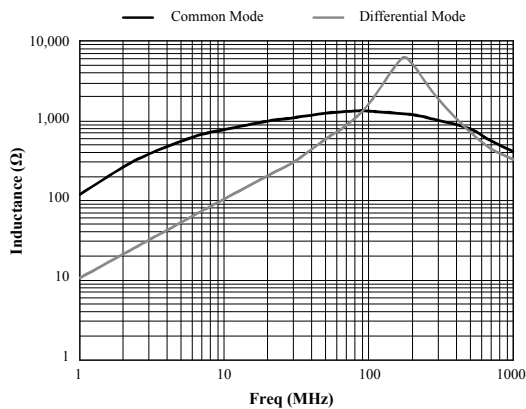
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AQF7035102YSB

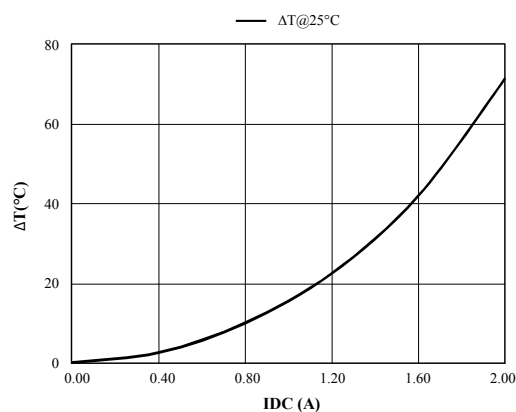
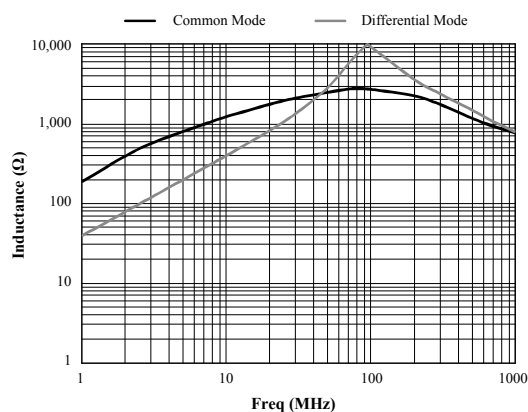


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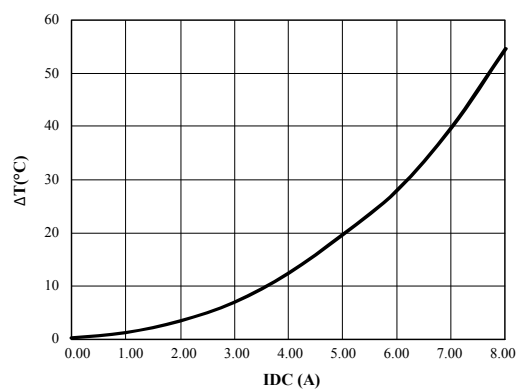
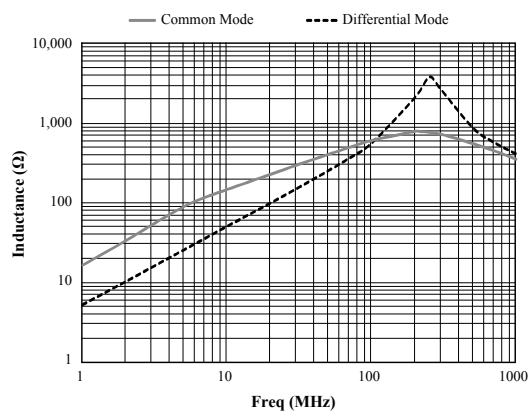


7035 / 9045 / 1260

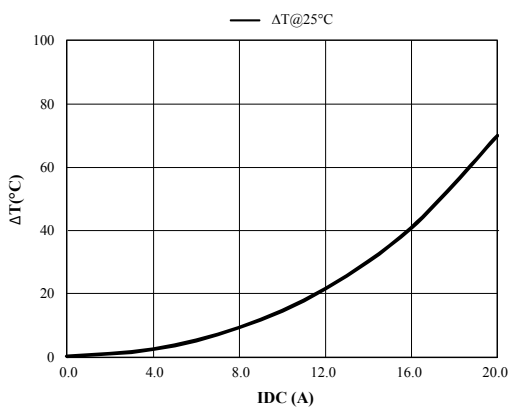
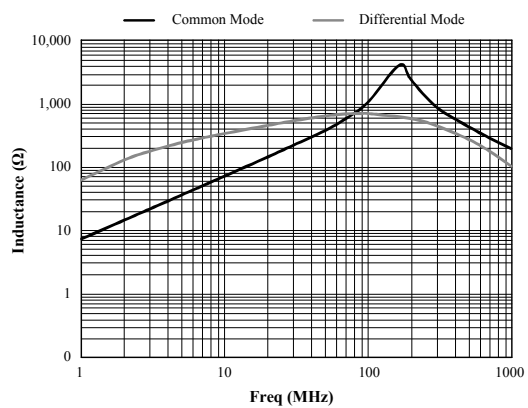
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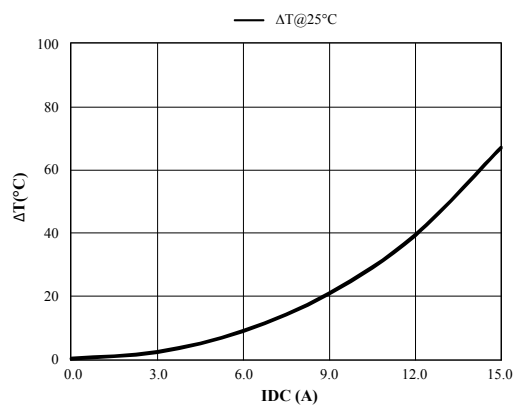
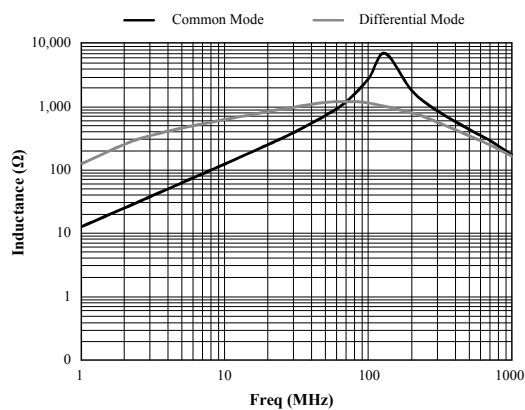


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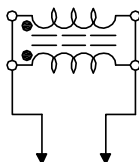


7035 / 9045 / 1260

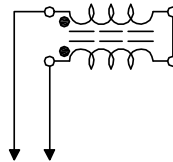
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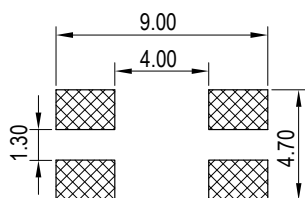
Common Mode Measuring circuit :



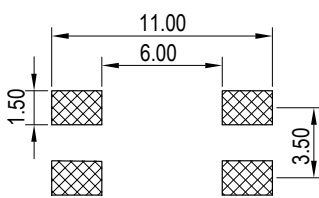
Differential Mode Measuring circuit :



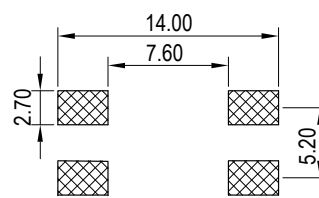
PCB Pattern



AQF7035



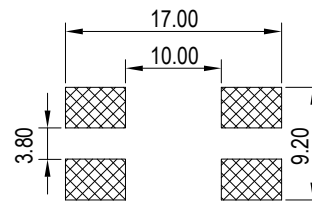
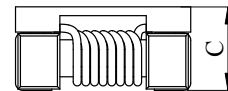
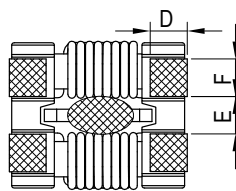
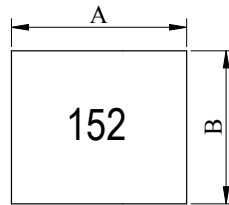
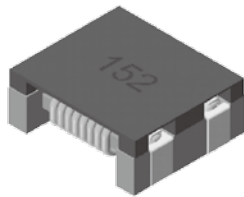
AQF9045



AQF1260

1560

Power Line EMI Solution



(PCB Pattern)

Unit: mm

Series	A	B	C	D	E	F
QF1560	15.00±0.40	13.00±0.40	6.00 max.	2.30±0.20	4.00 ref.	2.50 ref.

Features

- Reducing power noise for good performance.
- Low profile for SMD type.
- AEC-Q200 Grade 1
- Operating temp: -40°C ~ +125°C (including self-temperature rise)

Application

- Power lines noise against for automotive applications.



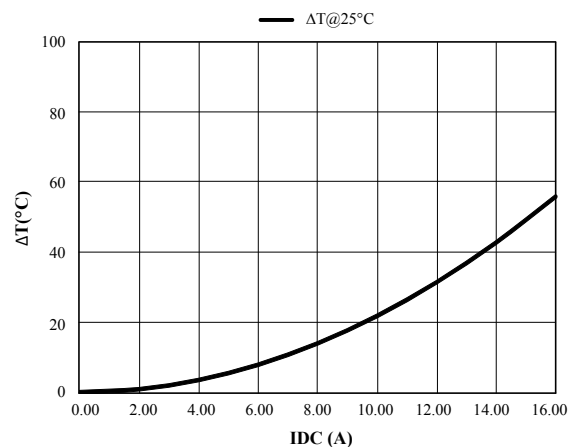
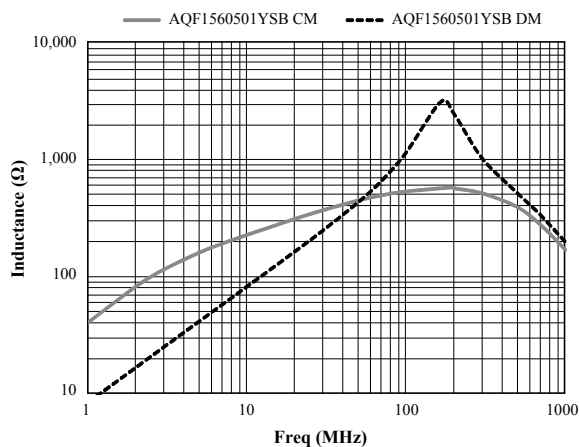
AQF1560 Series

DWG. No.	Impedance (Ω)		Test freq. (MHz)	L1, L2 (μ H) ref.	RDC1, RDC2 (m Ω) max.	IDC (A) max.
	min.	typ.				
AQF1560501YLB-□□□	450	550	100	6.30	5.60	10.00
AQF1560701YLB-□□□	500	700	100	8.50	6.50	8.30
AQF1560102YLB-□□□	710	1000	100	14.00	7.50	6.75
AQF1560152YLB-□□□	1050	1500	100	21.70	14.00	6.00
AQF1560202YLB-□□□	1400	2000	100	31.50	21.00	5.00
AQF1560222YLB-□□□	1540	2200	100	35.50	35.00	4.30
AQF1560272YLB-□□□	1850	2700	100	42.50	40.00	3.80
AQF1560302YLB-□□□	1950	3000	100	65.50	50.00	3.20

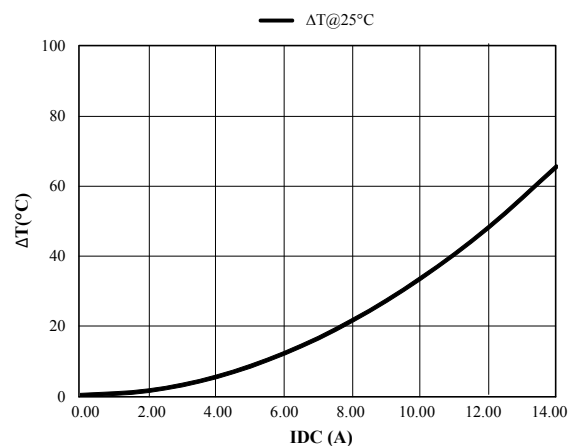
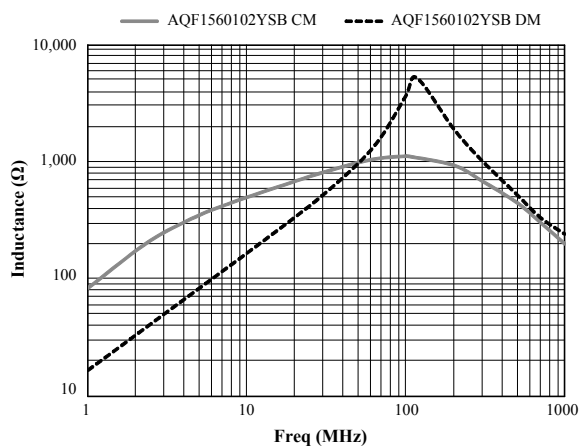
1. Electrical specifications at 25°C
2. Nominal voltage : 80Vdc
3. Inductance Test condition : 100kHz /0.1V
4. IDC base on temp. rise : 40°C max.
5. Insulation Resistance 10M Ω min.@100Vdc
6. Hi-pot test (N1 to N2) : 500Vac, 3mA, 1sec.

1560

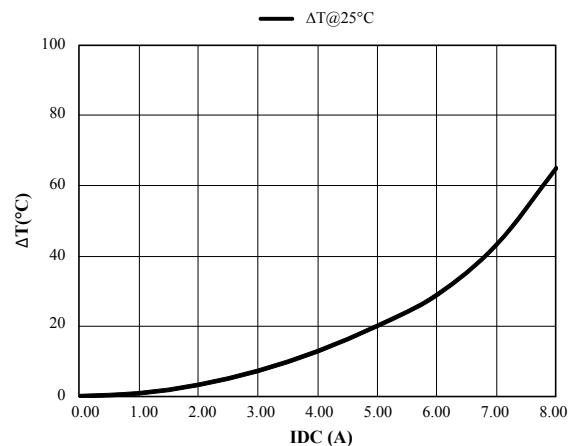
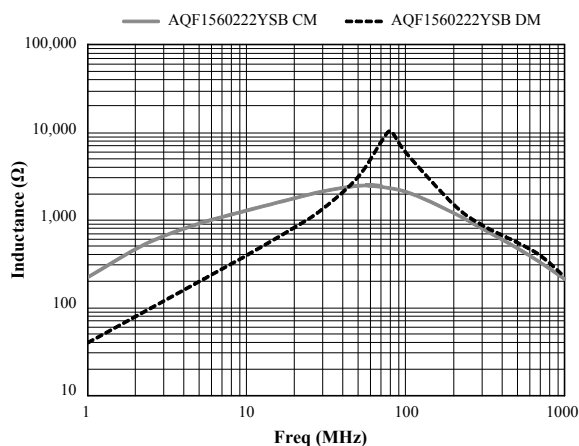
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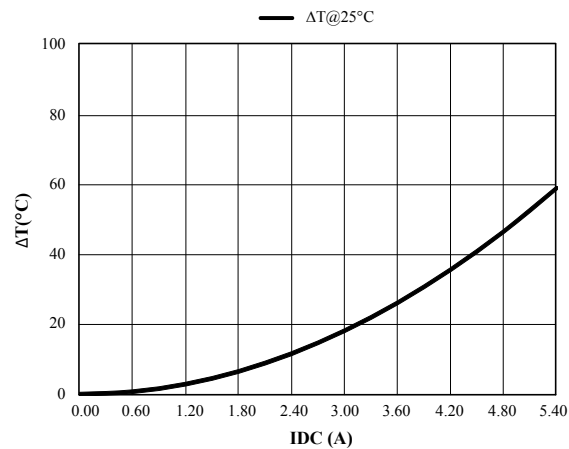
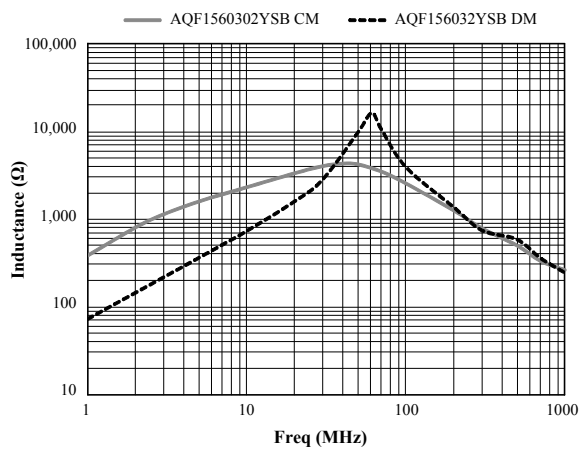
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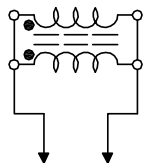
QF1560222YLB



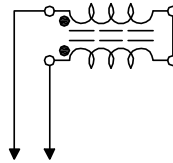
QF1560302YLB



Common Mode
Measuring circuit :



Differential Mode
Measuring circuit :



Packing Information

Type	Reel		Carton			Unit Weight /pc
	Q'TY (pcs)	G.W. (g)	Q'TY (pcs)	G.W. (kg)	Size (cm)	
SWI0402CT-A1	10,000		200,000		38.5 x 19.5 x 14.5	0.8 mg
SWI0603CS-A1	3,000		60,000		38.5 x 19.5 x 14.5	3.7 mg
ACC3225	2,000	220	100,000	15	41 x 39 x 22	0.05 g
ACC4532	500	140	20,000	8	41 x 39 x 22	0.11 g
MHE0630_T	1,000	330	0.75 g	6	38 x 37 x 22	0.75 g
MHE0640_T	1,000	330	1.0 g	6	38 x 37 x 22	1.0 g
MHE1040_T	800	330	2.3 g	11	38 x 37 x 22	2.3 g
MHE0630_Q	1,000	330	0.75 g	6	38 x 37 x 22	0.75 g
MHE1040_Q	800	330	2.3 g	11	38 x 37 x 22	2.3 g
MCH1040-S	800	2,400	3,200	11	38 x 37 x 22	2.3 g
ADP2016-E	3,000	140	150,000	7	41 x 39 x 22	18 mg
MSN3030	700	180	28,000	9	42 x 41 x 24	0.1 g
MSN4020	900	270	36,000	12	42 x 41 x 24	0.14 g
MSN4030	600	230	24,000	11	42 x 41 x 24	0.2 g
MSN5030	600	290	24,000	13	42 x 41 x 24	0.31 g
MSN5040	1,000	670	8,000	6	38 x 37 x 22	0.31 g
MSN6045	1,000	1,014	6,000	7	38 x 37 x 22	0.6 g
TPI4018CT-A1	3,000		60,000		38.5 x 37 x 42	115 mg
TPI6045CT-A1	1,000		16,000		38.5 x 37 x 42	0.61 mg
MRN8040	1,000	1,310	6,000	9	38 x 37 x 22	0.9 g
AER0403	2,000	750	16,000	7	38 x 37 x 22	0.18 g
AER0604	1,000	870	6,000	7	38 x 37 x 22	0.35 g
AER0805	1,000	1,200	6,000	9	38 x 37 x 22	0.81 g
MER1006	800	2,050	3,200	8	38 x 37 x 22	1.16 g
ASB7030	1,500	1,030	9,000	8	38 x 37 x 22	0.44 g
AQS3818	1,000	220	40,000	10	42 x 41 x 24	0.11 g
AQS4818	800	260	32,000	12	42 x 41 x 24	0.19 g
AQS4828	500	240	20,000	11	42 x 41 x 24	0.265 g
AQS5818	500	235	15,000	9	42 x 41 x 24	0.25 g
AQS5828	400	270	12,000	10	42 x 41 x 24	0.47 g
AQS6822	500	330	15,000	11	42 x 41 x 24	0.4 g
MQS3228	600	170	24,000	8	42 x 41 x 24	0.12 g
MQS3828	500	200	20,000	9	42 x 41 x 24	0.18 g
MQS5228	400	240	12,000	9	42 x 41 x 24	0.3 g
MQS6828	1,500	1,250	9,000	9	38 x 37 x 22	0.505 g
MQS6838	1,000	1,060	6,000	8	38 x 37 x 22	0.64 g
MBS0703	1,500	1,390	9,000	10	38 x 37 x 22	0.63 g
MBS0704	1,000	1,290	6,000	9	38 x 37 x 22	0.88 g

Packing Information

Type	Reel		Carton			Unit Weight /pc
	Q'TY (pcs)	G.W. (g)	Q'TY (pcs)	G.W. (kg)	Size (cm)	
ASU3028	2,000	600	16,000	6	38 x 37 x 22	0.125 g
ASU5028	600	260	24,000	12	42 x 41 x 24	0.27 g
ASU6025	600	290	24,000	13	42 x 41 x 24	0.31 g
ASU8028	1,500	1,320	9,000	9	38 x 37 x 22	0.61 g
ASU8045	1,000	1,450	6,000	10	38 x 37 x 22	1.0 g
ASU1028	1,000	1,340	4,000	7	38 x 37 x 22	0.9 g
ASU1038	800	1,480	3,200	7	38 x 37 x 22	1.26 g
ASU1048	600	1,330	2,400	7	38 x 37 x 22	1.63 g
ASS7032	1,500	1,080	9,000	8	38 x 37 x 22	0.45 g
ASS1210	250	1,710	1,000	8	38 x 37 x 22	4.5 g
ASS1260	600	2,460	2,400	11	38 x 37 x 22	4.2 g
ASS1280	400	2,160	1,600	10	38 x 37 x 22	4.5 g
ACU1048	700	1,720	2,800	8	38 x 37 x 22	1.85 g
MCU1277	450	2,250	1,800	10	38 x 37 x 22	4.32 g
MCU1255	550	2,160	2,200	10	38 x 37 x 22	3.1 g
MCU1040	800	1,540	3,200	7	38 x 37 x 22	1.35 g
MCU1060	500	1,510	2,000	7	38 x 37 x 22	2.1 g
MCU6045	1,000	990	6,000	7	38 x 37 x 22	0.56 g
MCU7045	1,000	1,210	6,000	9	38 x 37 x 22	0.8 g
MBF0703	1,500	1,320	9,000	9	38 x 37 x 22	0.59 g
MSF1258	600	2,180	2,400	10	38 x 37 x 22	2.95 g
MSF1278	400	1,950	1,600	9	38 x 37 x 22	5.6 g
MSF3225-B	1,200	130	48,000	7	41 x 39 x 22	0.07 g
MSF3225-S	1,200	130	48,000	7	41 x 39 x 22	0.07 g
MSF3225-E	1,200	150	48,000	7	41 x 39 x 22	0.07 g
MSF3425-D	1,200	150	48,000	7	41 x 39 x 22	0.07 g
MSF3425-B	1,200	150	48,000	7	41 x 39 x 22	0.07 g
MSF4532-D	2,000	670	16,000	7	38 x 37 x 22	0.15 g
ASF4532-E	500	120	20,000	6	39 x 37 x 22	0.15 g
ASF4532-C	2,000	670	16,000	7	40 x 37 x 22	0.15 g
MSF9050	1,000	860	6,000	7	38 x 37 x 22	0.378 g
AQF7035	1,200	910	7,200	7	38 x 37 x 22	0.4 g
AQF9045	1,000	1,100	6,000	8	38 x 37 x 22	0.67 g
AQF1260	500	1,606	2,000	8	38 x 37 x 22	2.2 g
AQF1560	500	1,810	2,000	9	38 x 37 x 22	2.73 g



Quality Policy

We insist on the spirit of "service, innovation and seeking for excellent".
Based on the commitment **"I am doing the excellent all the time"**
and participation of everybody.

We provide our customers products with Best Quality,
Quick Delivery and Best Price.

We are committed to quality, continuous R&D innovation, energy saving,
carbon reduction, and green sustainability, and we have launched on "10
Billion in 10 Years Plan" to build a technology industry group with "Annual
Revenue Growing to 10 Billion dollars in 10 years".

品質政策

我們秉持“服務、創新、追求卓越”的精神，透過

“凡經我手最美、最好”

的全員參與，提供品質、交期與價格符合客戶要求的產品。

我們以品質優勢、持續研發創新，奉行節能減碳，綠色永續，
展開「十年百億計畫」，建立[年營收十年內上百億元]之科技工業集團。



千如電子集團
ABC-ATEC ELECTRONICS GROUP.



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