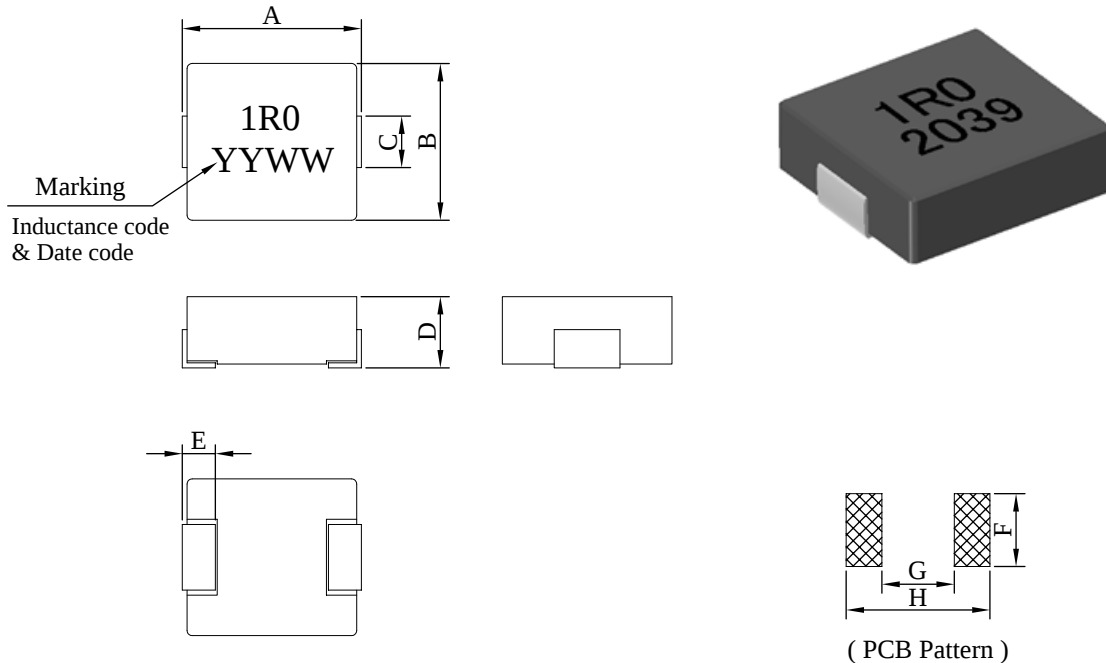


SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.		EHI1040□□□□S□-□□□	
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I . Configuration and dimensions :



Unit : mm

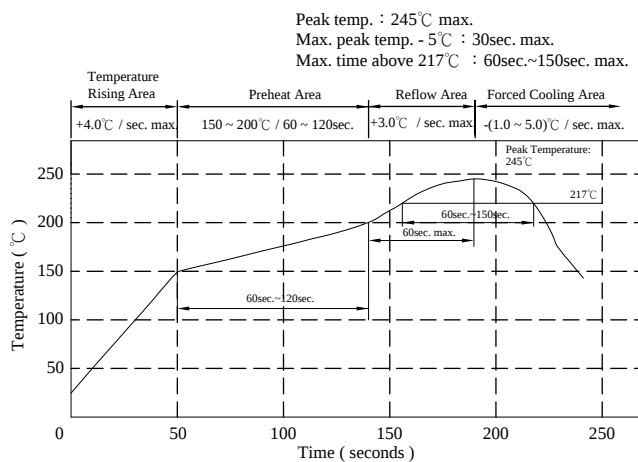
A	B	C	D	E	F	G	H
11.00 ±0.5	10.00 ±0.3	3.00 ±0.3	3.80 ±0.2	2.30 ±0.3	3.50 ref.	5.40 ref.	13.60 ref.

II . Description :

- a . Powder molding construction
- b . Magnetically shielded
- c . Wire : Polyester wire or equivalent
- d . Products comply with RoHS' requirements
- e . Halogen free

III . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C
(Temp. rise included)
- c . Resistance to solder heat : 260°C.10 sec.



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IV . Electrical characteristics :

DWG. No.	Inductance (μ H)	Isat (A) typ.	Irms (A) typ.	RDC (m Ω)	
				max.	typ.
EHI1040R10YSB-□□□	0.10 $\pm$ 30%	85.00	46.00	0.41	0.35
EHI1040R15YSB-□□□	0.15 $\pm$ 30%	75.00	43.00	0.60	0.50
EHI1040R18YSB-□□□	0.18 $\pm$ 30%	72.00	38.00	0.80	0.54
EHI1040R22MSB-□□□	0.22 $\pm$ 20%	60.00	35.00	1.00	0.80
EHI1040R33MSB-□□□	0.33 $\pm$ 20%	60.00	31.00	1.20	1.00
EHI1040R47MSB-□□□	0.47 $\pm$ 20%	43.00	28.00	1.50	1.30
EHI1040R68MSB-□□□	0.68 $\pm$ 20%	39.00	22.00	2.70	2.40
EHI10401R0MSB-□□□	1.00 $\pm$ 20%	36.00	18.00	3.30	3.00
EHI10401R5MSB-□□□	1.50 $\pm$ 20%	33.00	16.00	4.60	4.00
EHI10401R8MSB-□□□	1.80 $\pm$ 20%	30.00	14.00	6.40	5.30
EHI10402R2MSB-□□□	2.20 $\pm$ 20%	27.00	12.00	7.00	6.50
EHI10403R3MSB-□□□	3.30 $\pm$ 20%	20.00	11.00	11.80	10.80
EHI10404R7MSB-□□□	4.70 $\pm$ 20%	17.00	10.00	15.50	15.00
EHI10406R8MSB-□□□	6.80 $\pm$ 20%	13.50	8.50	23.30	17.50
EHI1040100MSB-□□□	10.00 $\pm$ 20%	12.00	7.50	30.00	27.00
EHI1040150MSB-□□□	15.00 $\pm$ 20%	10.00	6.25	45.00	40.00
EHI1040180MSB-□□□	18.00 $\pm$ 20%	9.00	5.50	62.00	56.00
EHI1040220MSB-□□□	22.00 $\pm$ 20%	7.00	5.00	74.00	64.00
EHI1040330MSB-□□□	33.00 $\pm$ 20%	5.00	3.50	112.00	92.00
EHI1040470MSB-□□□	47.00 $\pm$ 20%	4.50	3.00	167.00	145.00
EHI1040680MSB-□□□	68.00 $\pm$ 20%	3.00	2.00	240.00	205.00

- 1). Electrical specifications at 25°C
- 2). Measured frequency of inductance is 100 kHz / 1V
- 3). Isat base on $\Delta L/L0A=30\%$ typ. (Approximately transient current)
- 4). Irms base on Temp. rise 40°C typ.

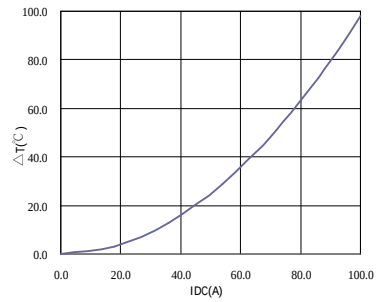
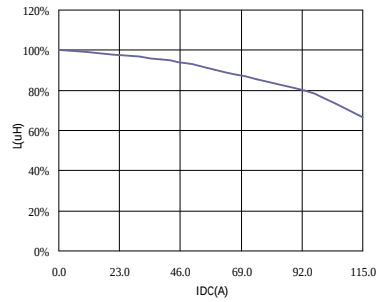
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SPECIFICATION FOR APPROVAL

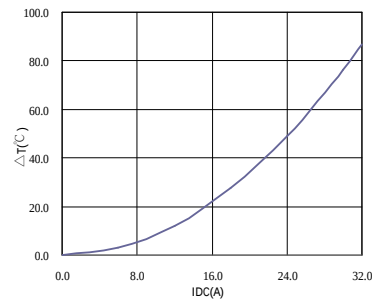
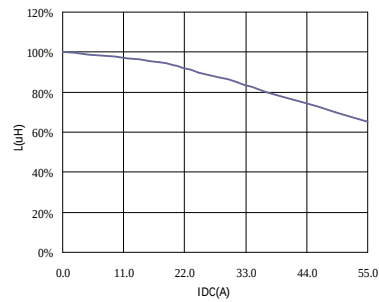
REF :

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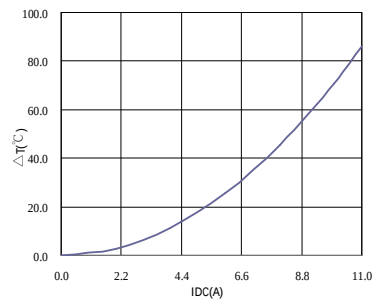
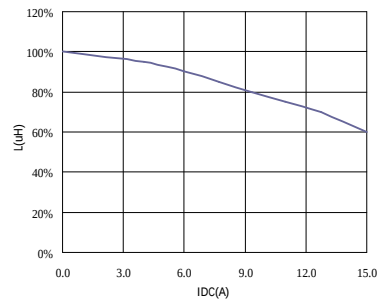
V . Curve :
EHI1040R10YSB



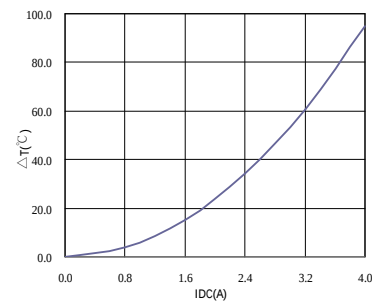
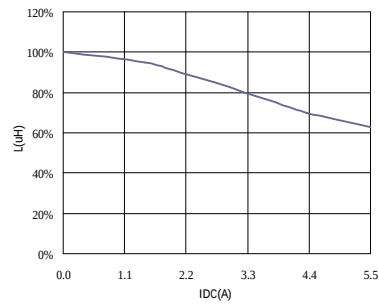
EHI10401R0MSB



EHI1040100MSB



EHI1040680MSB



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VI . Packaging information :

(1) Configuration

※Carrier tape width : D

End Start

Leader no component 192 mm min. Components Trailer no component 384 mm min.

User direction of feed →

(2) Dimensions Unit:mm

Style	A	B	C	D	G
13 - 24	330	100 ±0.2	13 ^{+0.5} _{-0.2}	24	24.4 ⁺² ₋₀

(3) Q'TY & G.W. Per package

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (kg)	Size (cm)
B	500	1500	13 - 24	4,000	13.8	38 x 37 x 22

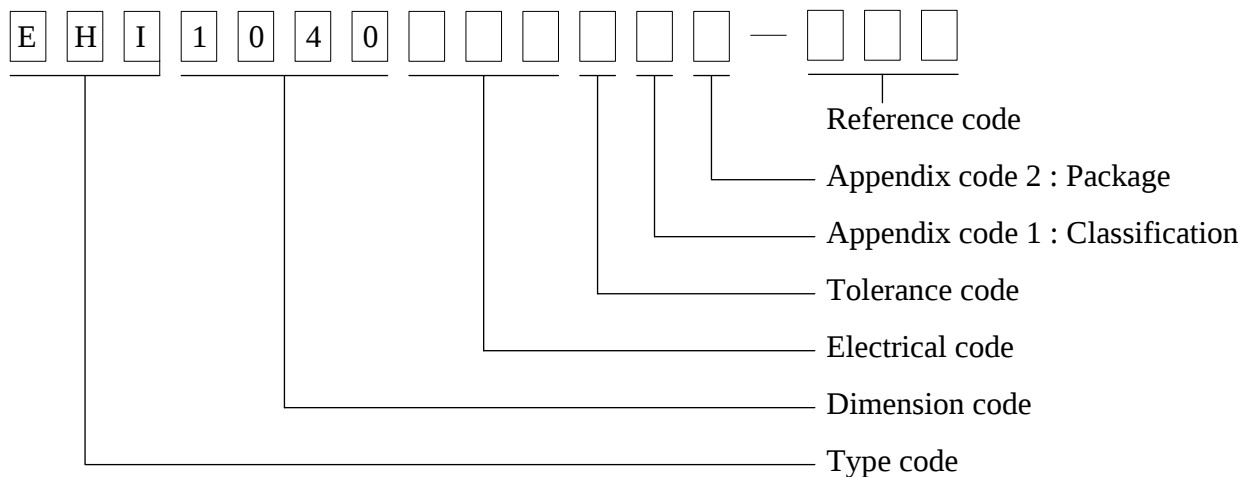
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VII . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T / R (Reel package)	Heat seal	Antistatic	Antistatic	500pcs	

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VIII . Reliability test :					
Item	Reference documents	Test Condition		Test Specification	
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125±2℃ 2.Time:96±2 hours.		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycles 3.Dwell time:30 minutes		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature : 85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
4.Operational Life	JESD22-A 108	1.Temperature: 125℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
5.External Visual	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.		1.No pollution on the surface of products. 2.Clear marking. 3.No crack.	
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.		Per product specification standard	
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.		1.No body change in apperarence. 2.No marking blurred. 3.Inductance shall not change more than ±20%.	
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitued : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total.		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature : 245±5℃. 2.Time (temp. ≥ 217℃) : 60~150 Seconds. 3.IR reflow times : 3 times.		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Saturation current		Inductance shall not drop more than 30% typ.	
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current		No electrical or mechanical damage	
12.Temperature Rise Current	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current		Surface temperature rise is less than 40℃ typ.	
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5℃ / 16Hours±30 min. 2.Peak temperature : 240±5℃ 3.Time (temp. ≥ 217℃) : 60~150 seconds. 4.IR reflow times : 1 time.		More than 95% soldering coverage min on terminations.	
14.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature : -40℃~125℃ 2.Room temperature : 25℃.		1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.	
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. PCB and dropped down from a height of 1m 2.Drop total time : 6 times (Every side of sample drop 2 times)		1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.	
16.Terminal Strength Test	IEC 60068-2-21	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.		After test, inductors shall be no mechanical damage.	

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IX . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20200924-A	New Release	Lijuan Y	Cyrus	Roger
20210317-B	Delete the marking "Date code"	Lijuan Y	Cyrus	Roger
20210412-C	Add the marking "Date code"	Lijuan Y	Cyrus	Roger

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