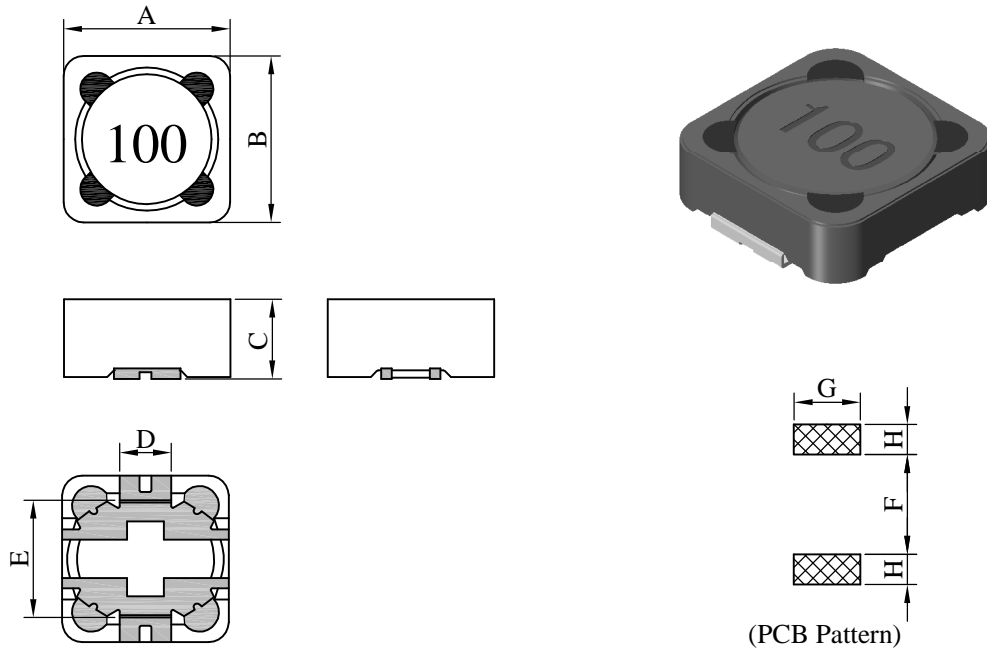


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CS1240□□□□L□-□□□		
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I . Configuration and dimensions :



Unit : m/m

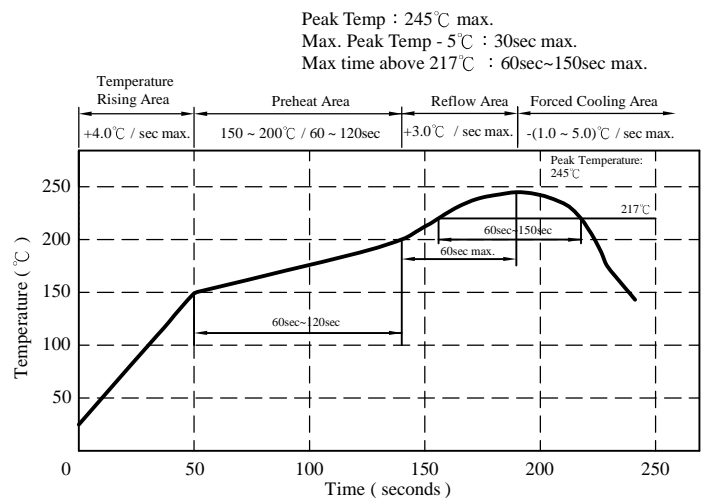
A	B	C	D	E	F	G	H
12.50±0.3	12.50±0.3	4.50 max.	4.90 typ.	7.90 typ.	7.30 typ.	5.30 ref.	2.80 ref.

II . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : F & H class
- d . Product weight : 2.10 g (ref.)
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

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 : 245°C.10 secs.



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IV . Electrical characteristics :

DWG No.	Inductance (μH)	RDC(mΩ)		Isat (A)	Irms (A)
		ref.	max.		
CS1240100ML□-□□□	10.0±20%	33.5	47	3.90	3.50
CS1240120ML□-□□□	12.0±20%	35.9	55	3.70	3.40
CS1240150ML□-□□□	15.0±20%	54.6	76	3.20	2.90
CS1240180ML□-□□□	18.0±20%	62.1	87	2.80	2.60
CS1240220ML□-□□□	22.0±20%	66.1	93	2.70	2.30
CS1240270ML□-□□□	27.0±20%	90.0	127	2.30	2.00
CS1240330ML□-□□□	33.0±20%	101.0	135	2.20	1.90
CS1240390ML□-□□□	39.0±20%	112.0	150	2.00	1.80
CS1240470ML□-□□□	47.0±20%	142.0	185	1.80	1.60
CS1240560ML□-□□□	56.0±20%	154.0	200	1.70	1.50
CS1240680ML□-□□□	68.0±20%	176.0	230	1.60	1.40
CS1240820ML□-□□□	82.0±20%	196.0	255	1.50	1.40
CS1240101KL□-□□□	100.0±10%	233.0	305	1.30	1.30
CS1240121KL□-□□□	120.0±10%	302.0	390	1.10	1.10
CS1240151KL□-□□□	150.0±10%	385.0	500	1.00	0.90
CS1240181KL□-□□□	180.0±10%	428.0	560	0.95	0.84
CS1240221KL□-□□□	220.0±10%	513.0	670	0.77	0.77
CS1240271KL□-□□□	270.0±10%	620.0	805	0.68	0.77
CS1240331KL□-□□□	330.0±10%	716.0	930	0.61	0.70
CS1240391KL□-□□□	390.0±10%	879.0	1140	0.57	0.66
CS1240471KL□-□□□	470.0±10%	1140.0	1480	0.50	0.57
CS1240561KL□-□□□	560.0±10%	1287.0	1670	0.47	0.54
CS1240681KL□-□□□	680.0±10%	1599.0	2070	0.41	0.48
CS1240821KL□-□□□	820.0±10%	1849.0	2400	0.39	0.40
CS1240102KL□-□□□	1000.0±10%	2375.0	3090	0.38	0.40

- 1). □ : Packaging information : □ Code
- 2). "- □□□ " : Reference code
- 3). Electrical specifications at 25°C
- 4). Irms base on Temp. rise 40°C typ.
- 5). Isat base on $\Delta L/L0A=25\%$ typ.
- 6). L Test Condition : 1kHz / 0.1V

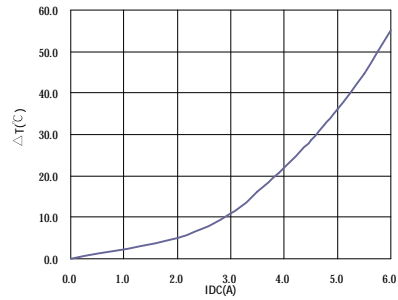
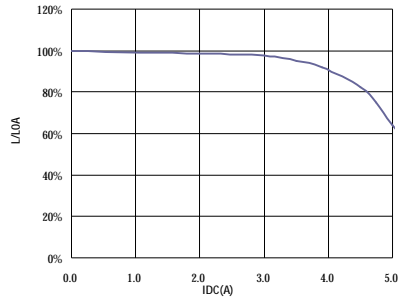
SPECIFICATION FOR APPROVAL

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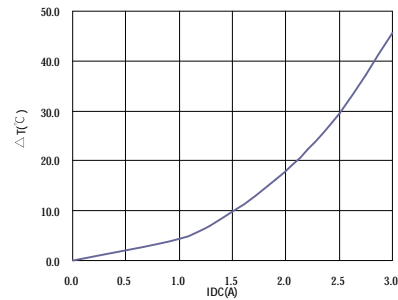
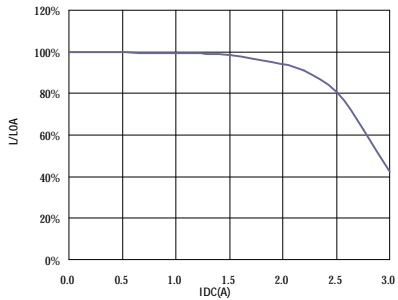
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V . Curve :

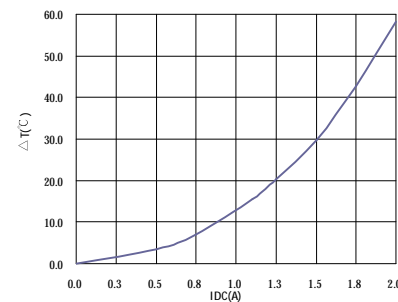
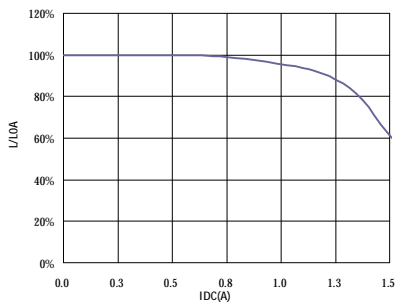
CS1240100ML□



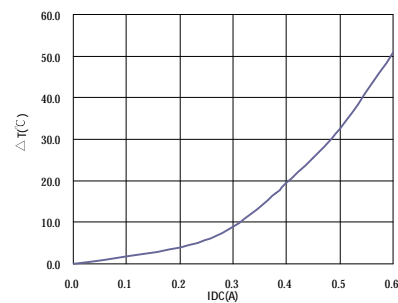
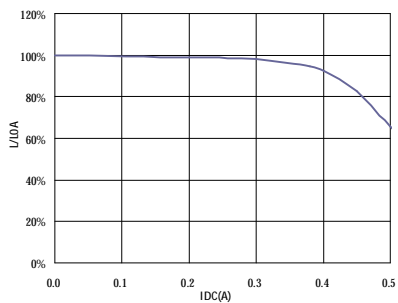
CS1240330ML□



CS1240121KL□



CS1240102KL□



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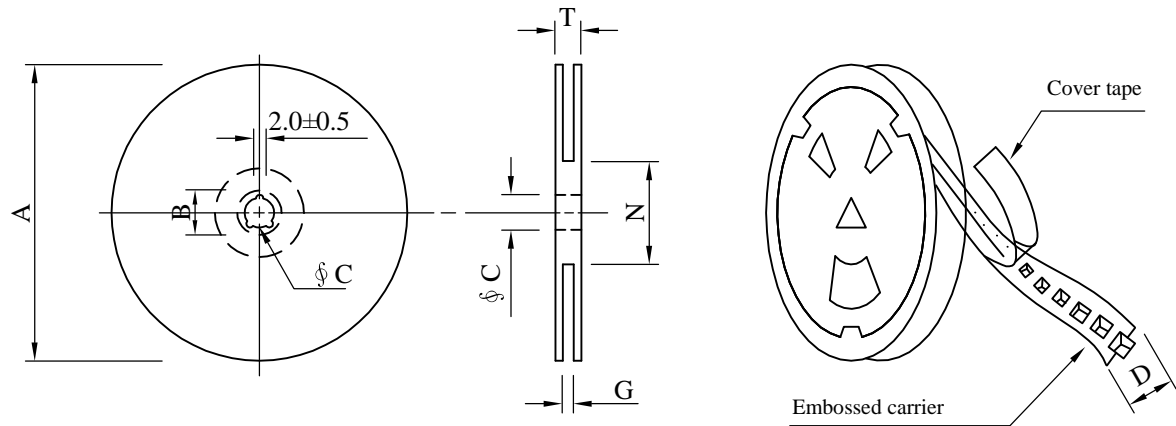
SPECIFICATION FOR APPROVAL

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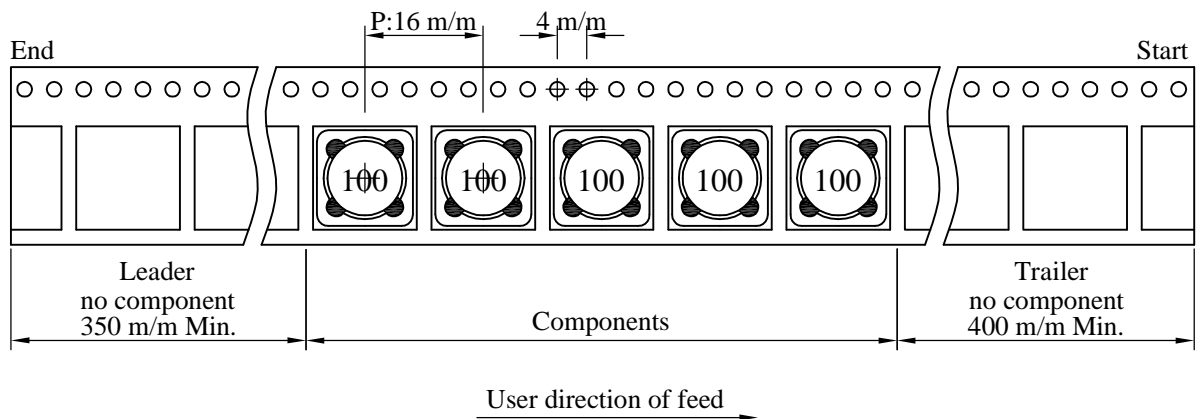
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VI . Packaging information :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26 ⁺⁰	60 ⁻⁰	30.4

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

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
B	800	2,110	13 - 24	3,200	9.7	38 x 37 x 22

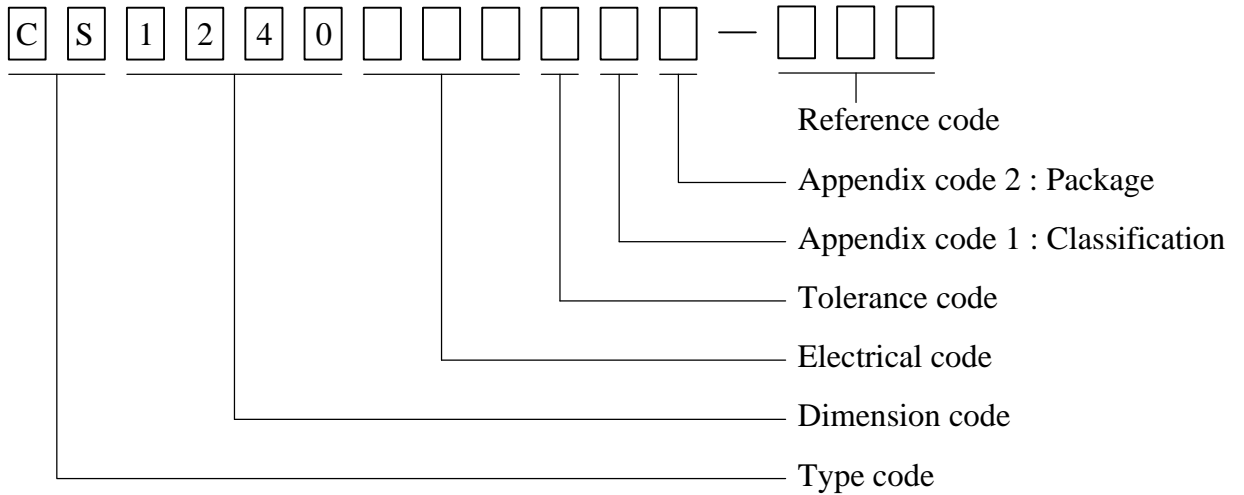
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VII . Drawing number expression :



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)	UCT	Antistatic	Antistatic	800 pcs	

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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 appearance. 2.No marking blurred. 3.Inductance shall not change more than ±20%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitud : 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 25% 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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