SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CS1208□□□□L□-□□□		
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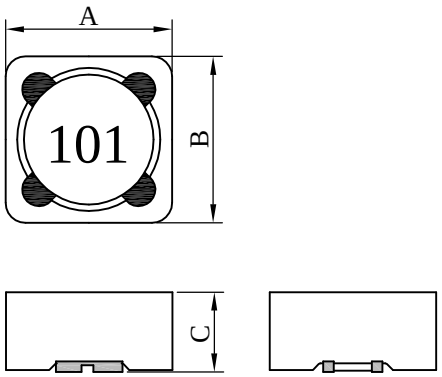
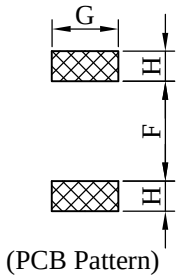
Ⅰ．Configuration and dimensions：





(PCB Pattern)

Unit：m/m

A	B	C	D	E	F	G	H
12.50±0.3	12.50±0.3	8.00 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 class

d．Product weight： 4.50 g（ref.）

e．Moisture sensitivity Level 1

f．Products comply with RoHS' requirements

g．Halogen free available

Ⅲ．General specification：

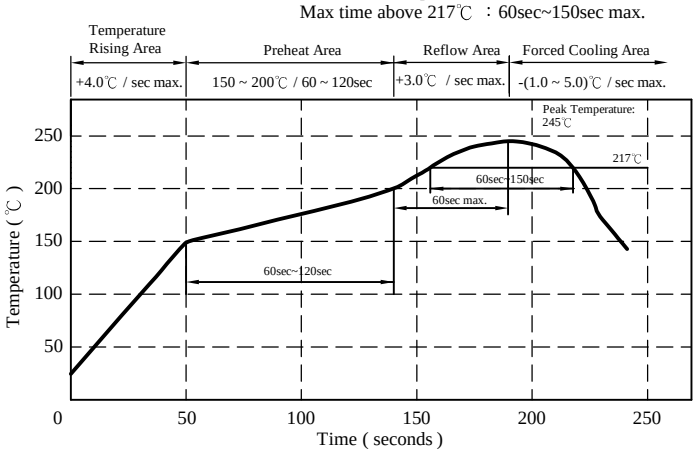
a．Storage temp.：-40℃ ----+125℃

b．Operating temp.：-40℃----+125℃

(Temp. rise included)

c．Resistance to solder heat：245℃.10 secs.

Peak Temp：245℃ max.
Max. Peak Temp - 5℃ ：30sec max.
Max time above 217℃ ：60sec~150sec max.



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Ⅳ．Electrical characteristics：

DWG No.	Inductance (μH)	RDC(mΩ)		Isat (A)	Irms (A)
		ref.	max.		
CS12082R5YL□-□□□	2.50±30%	10.3	14.5	10.5	7.10
CS12084R5YL□-□□□	4.50±30%	12.8	18.0	8.80	6.20
CS12086R5YL□-□□□	6.50±30%	15.2	20.0	8.50	6.00
CS1208100ML□-□□□	10.00±20%	18.2	25.0	7.20	5.20
CS1208120ML□-□□□	12.00±20%	21.7	29.0	6.30	4.90
CS1208150ML□-□□□	15.00±20%	26.3	35.0	6.00	4.50
CS1208180ML□-□□□	18.00±20%	30.3	40.0	5.00	4.00
CS1208220ML□-□□□	22.00±20%	35.4	46.0	4.50	3.60
CS1208270ML□-□□□	27.00±20%	43.4	55.0	4.00	3.30
CS1208330ML□-□□□	33.00±20%	55.6	70.5	3.60	3.00
CS1208390ML□-□□□	39.00±20%	68.9	86.0	3.30	2.70
CS1208470ML□-□□□	47.00±20%	75.4	95.0	3.20	2.40
CS1208560ML□-□□□	56.00±20%	88.2	110.0	2.80	2.20
CS1208680ML□-□□□	68.00±20%	109.0	135.0	2.50	2.00
CS1208820ML□-□□□	82.00±20%	115.0	150.0	2.40	1.90
CS1208101ML□-□□□	100.0±20%	133.0	170.0	2.10	1.80
CS1208121KL□-□□□	120.0±10%	168.0	210.0	2.00	1.70
CS1208151KL□-□□□	150.0±10%	214.0	270.0	1.80	1.60
CS1208181KL□-□□□	180.0±10%	233.0	300.0	1.60	1.50
CS1208221KL□-□□□	220.0±10%	308.0	390.0	1.50	1.40
CS1208271KL□-□□□	270.0±10%	354.0	450.0	1.40	1.30
CS1208331KL□-□□□	330.0±10%	424.0	550.0	1.20	1.20
CS1208391KL□-□□□	390.0±10%	464.0	600.0	1.10	1.10
CS1208471KL□-□□□	470.0±10%	573.0	820.0	1.00	1.00
CS1208561KL□-□□□	560.0±10%	673.0	850.0	1.00	0.90
CS1208681KL□-□□□	680.0±10%	825.0	1030.0	0.90	0.80
CS1208821KL□-□□□	820.0±10%	953.0	1200.0	0.80	0.70
CS1208102KL□-□□□	1000.0±10%	1173.0	1500.0	0.75	0.65
CS1208122KL□-□□□	1200.0±10%	1398.0	1800.0	0.70	0.60
CS1208152KL□-□□□	1500.0±10%	1706.0	2200.0	0.60	0.50

1). □：Packaging information：□ Code

2). "-□□□"：Reference code

3). Electrical specifications at 25℃

4). Irms base on Temp. rise 40℃ typ.

5). Isat base on △L/L0A=25% typ.

6). L Test Condition：1kHz / 0.1V

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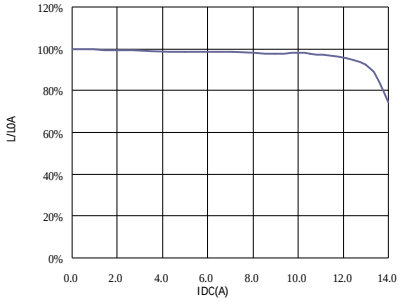
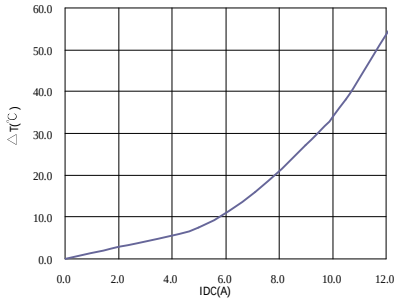
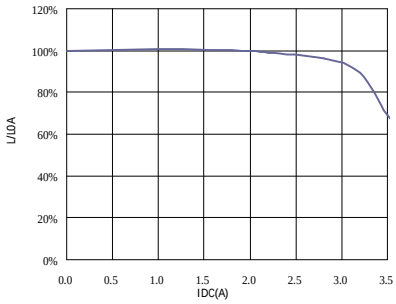
Ⅴ . Curve：

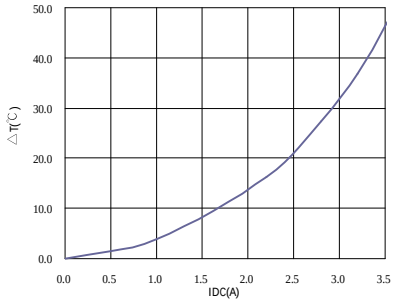
CS12082R5YL□



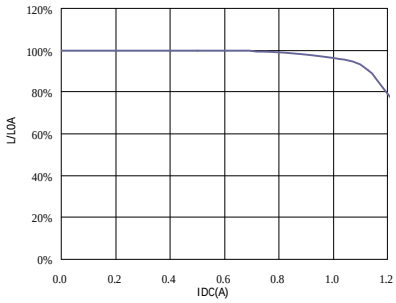


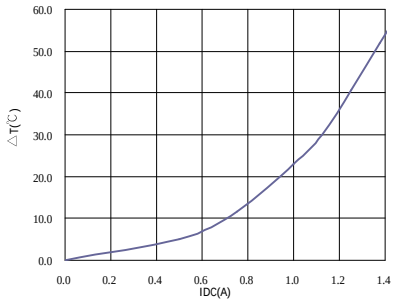
CS1208560ML□



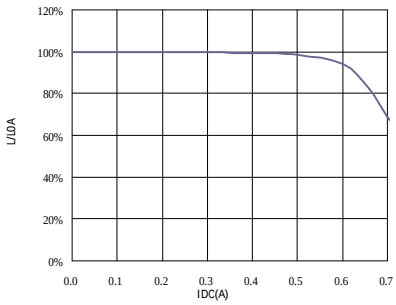


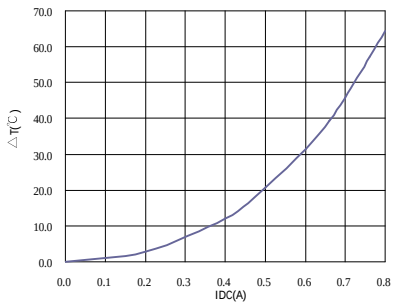
CS1208471KL□





CS1208152KL□





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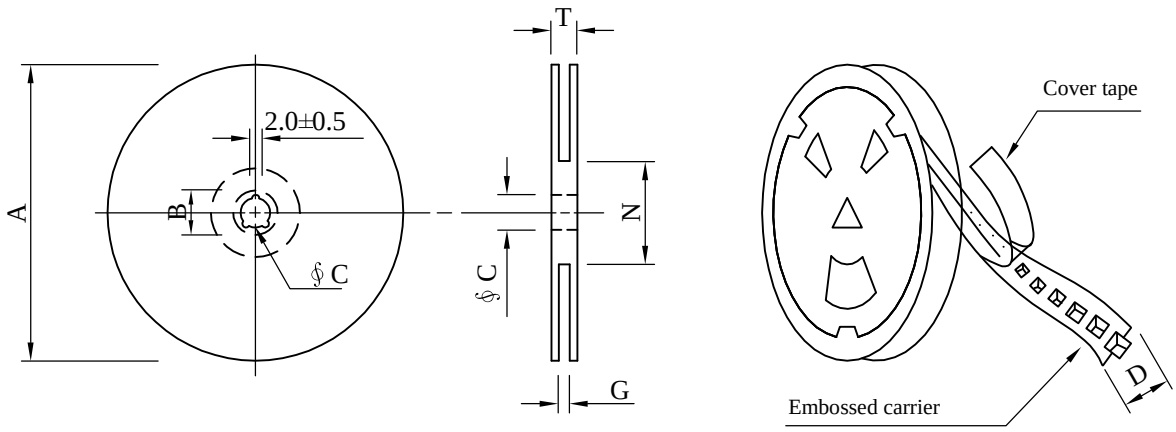
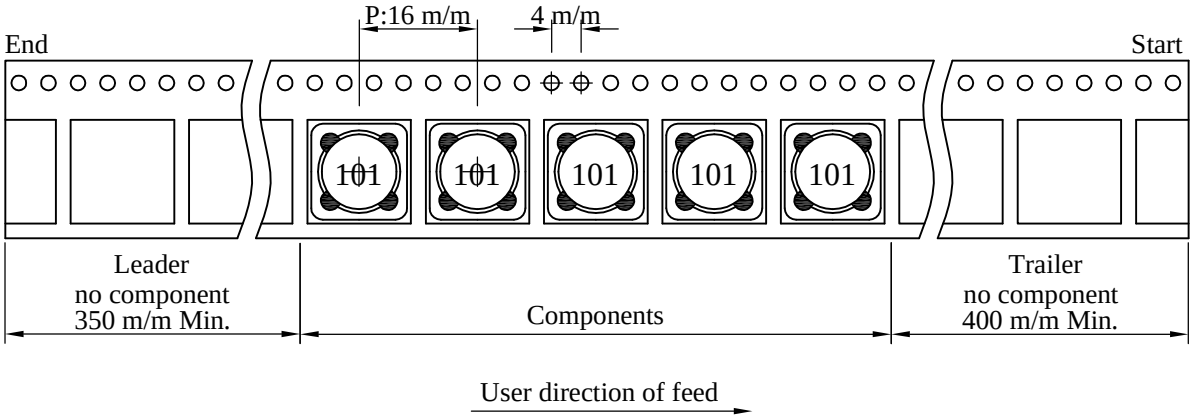
Ⅵ．Packaging information：

(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	400	2,140	13 - 24	1,600	9.8	38 x 37 x 24

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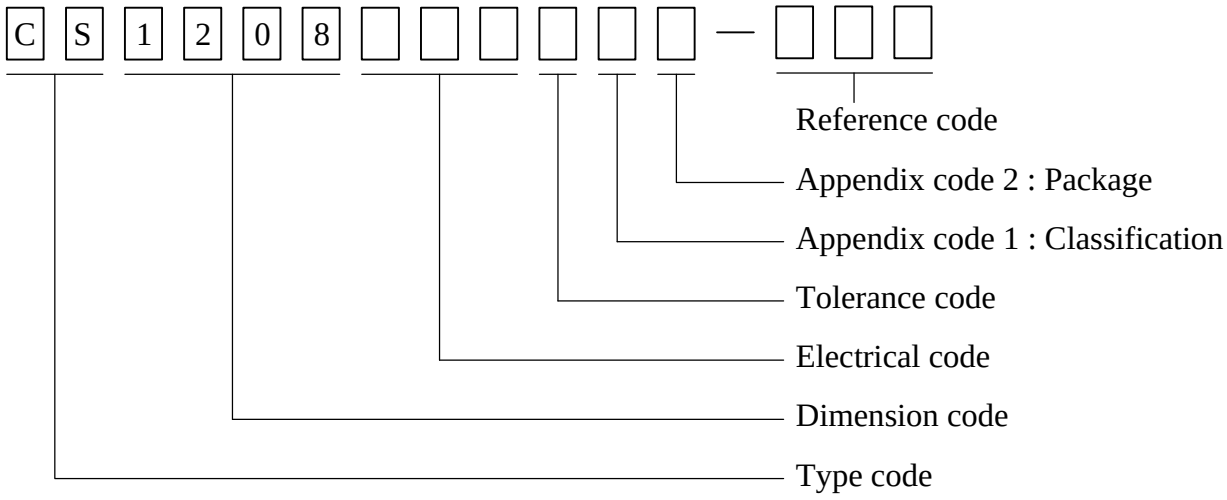
Ⅶ．Drawing number expression：



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	400 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 apperarance. 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 second. 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.