SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CS3015□□□□S□-□□□		
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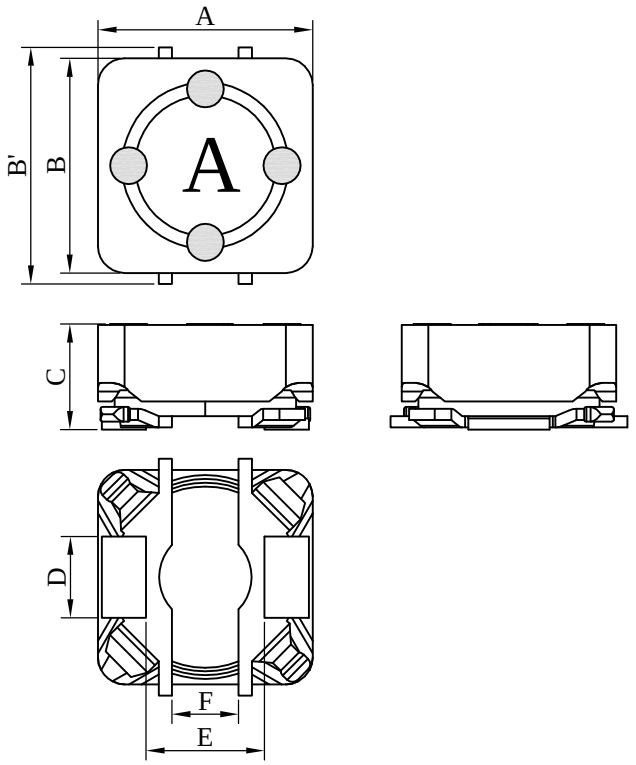
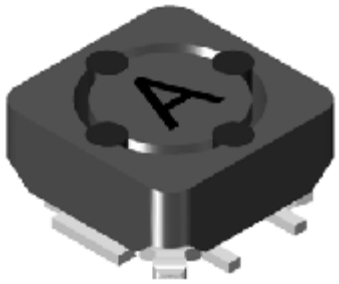
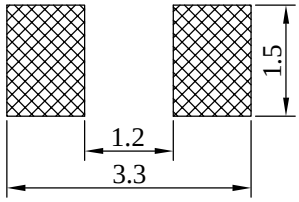
Ⅰ．Configuration and dimensions：







(PCB Pattern)

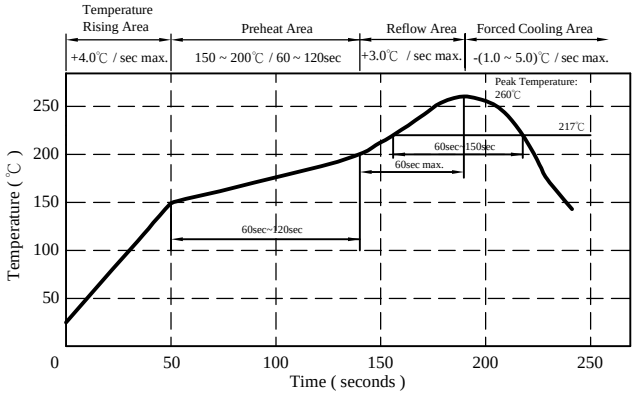
Unit：m/m

A	B	B'	C	D	E	F
2.90±0.1	2.90±0.1	3.20 max.	1.50 max.	1.10 typ.	1.60 typ.	0.90 ref.

Ⅱ．Description：

a．Ferrite drum core construction.
b．Magnetically shielded.
c．Enamelled copper wire：H class
d．Product weight： 0.04g（ref.）
e．Moisture sensitivity Level 1
f．Products comply with RoHS' requirements
g．Halogen free available

Peak Temp：260℃ max.
Max. Peak Temp - 5℃：30sec max.
Max time above 217℃ ：60sec~150sec max.



Ⅲ．General specification：

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

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Ⅳ . Electrical characteristics：

DWG No.	Inductance (μH)	RDC (mΩ)		SRF (MHz) typ.	Isat (mA) typ.	Irms (mA) typ.	Marking
		typ.	max.				
CS30151R0YS□-□□□	1.0±30%	55.0	70.0	145.0	1650	1900	A
CS30152R2YS□-□□□	2.2±30%	105.0	125.0	100.0	1100	1300	C
CS30153R3YS□-□□□	3.3±30%	135.0	160.0	75.0	900	1100	E
CS30154R7YS□-□□□	4.7±30%	170.0	200.0	67.0	800	900	F
CS30156R8YS□-□□□	6.8±30%	310.0	375.0	50.0	650	700	G
CS3015100MS□-□□□	10.0±20%	370.0	450.0	40.0	550	600	H
CS3015150MS□-□□□	15.0±20%	570.0	685.0	30.0	450	500	I
CS3015220MS□-□□□	22.0±20%	755.0	900.0	25.0	350	400	J
CS3015330MS□-□□□	33.0±20%	1220.0	1465.0	22.0	300	300	K
CS3015470MS□-□□□	47.0±20%	2000.0	2400.0	17.5	250	250	L

1). □：Packaging information：□ Code

2). "-□□□"：Reference code

3). Electrical specifications at 25℃

4). Inductance Test Condition.：100KHz / 0.1V

5). Isat base on △L / L0A=35% typ.

6). Irms base on Temp. rise 40℃ typ.

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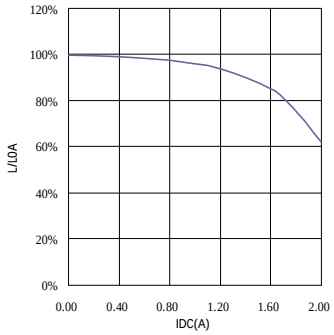
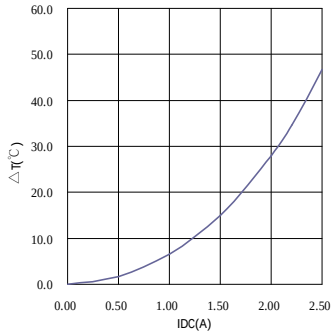
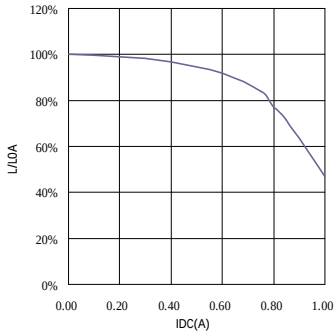
V . Curve：

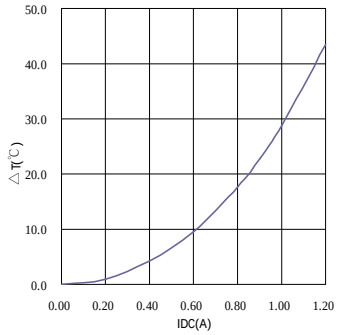
CS30151R0Y



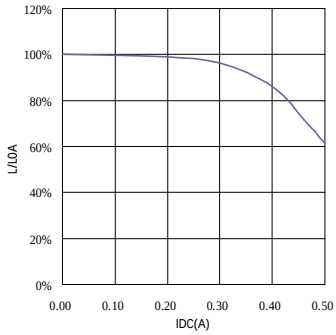


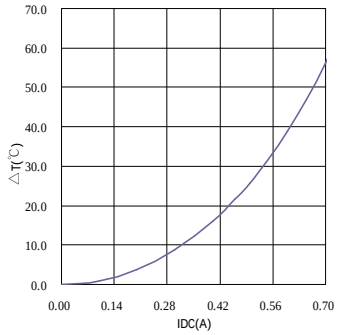
CS30154R7Y



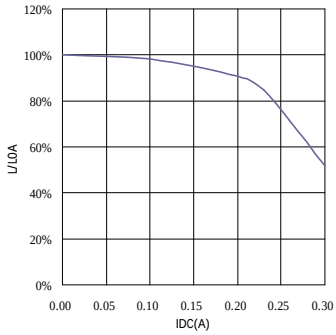


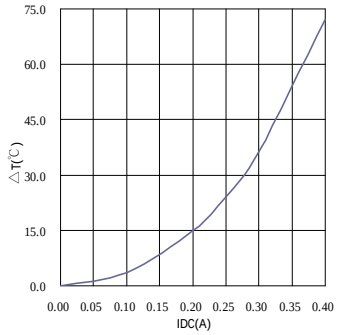
CS3015150M





CS3015470M





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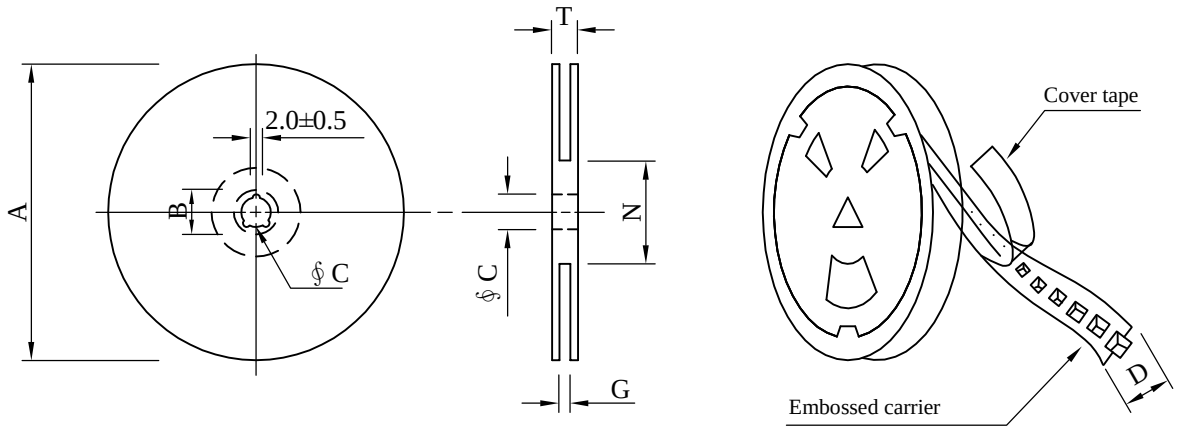
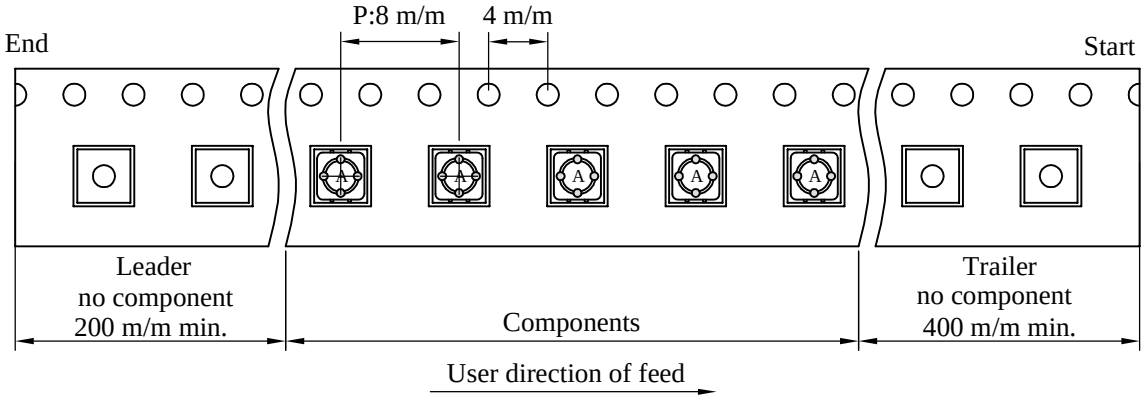
Ⅵ．Packaging information：

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 12	330	21±0.8	13±0.5	12	14^{+0}	50^{-0}	22.4

(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	3,000	570	13 - 12	24,000	5.8	38 x 37 x 22

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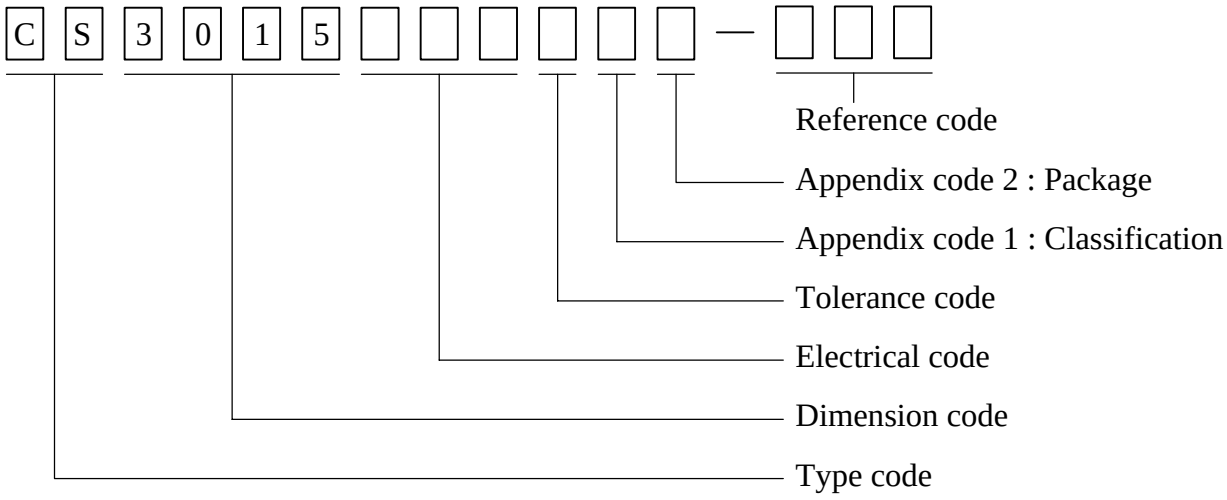
Ⅶ．Drawing number expression：



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)	Adhesive	Non-antistatic	Antistatic	3000 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 cycle 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：260±5℃. 2.Time（temp.≧ 217℃）：60~150 Second. 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 35% 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 second. 4.IR reflow times：1 times.	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 time (Every side of sample drop 2 time)	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
20160727-A	Released	Miz	Leo	Nick