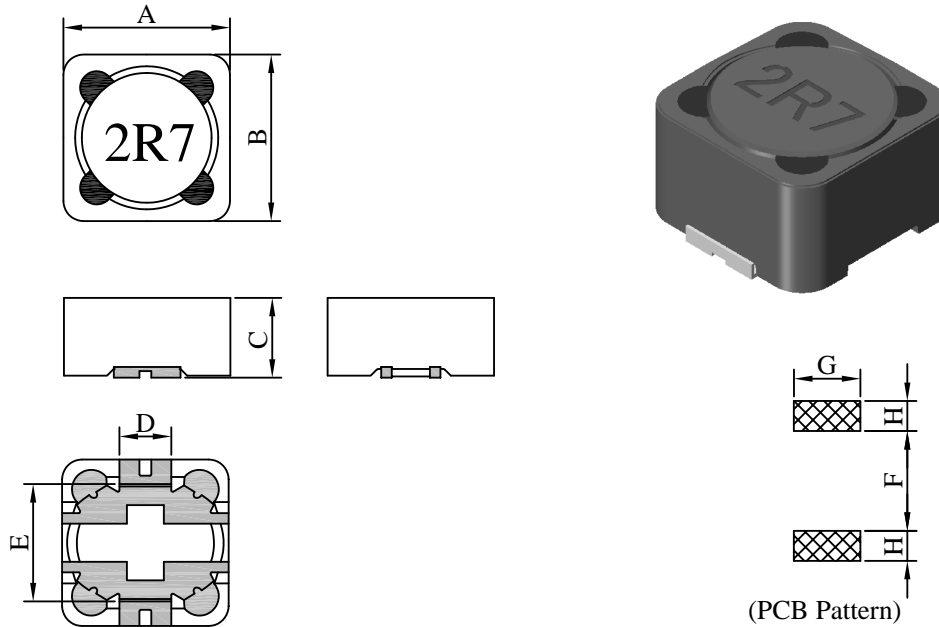


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	CS1280□□□□L□-□□□		
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I . Configuration and dimensions :



Unit : m/m

A	B	C	D	E	F	G	H
12.0±0.5	12.0±0.5	8.00 max.	5.00 ref.	7.60 ref.	7.40 ref.	5.40 ref.	2.80 ref.

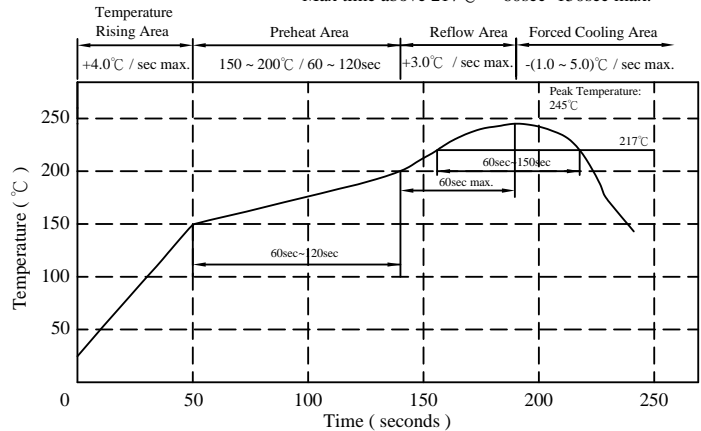
II . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : F & H class
- d . Product weight : 4.0 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.

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



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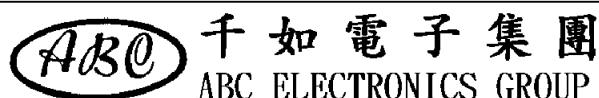
IV . Electrical characteristics :

DWG No.	Inductance ( μH )	RDC mΩ		Irms ( A ) typ.	Isat ( A ) typ.
		typ.	max.		
CS12801R1YLB-□□□	1.10 ± 30%	4.5	6.5	10.20	14.0
CS12802R7YLB-□□□	2.70 ± 30%	7.2	10	9.20	10.5
CS12803R9YLB-□□□	3.90 ± 30%	11.3	12	8.80	9.80
CS12807R6YLB-□□□	7.60 ± 30%	13.7	18	6.40	7.00
CS1280100MLB-□□□	10.0 ± 20%	14.3	20	5.40	6.60
CS1280120MLB-□□□	12.0 ± 20%	17.8	28	4.90	6.30
CS1280150MLB-□□□	15.0 ± 20%	18.6	29	4.50	5.00
CS1280180MLB-□□□	18.0 ± 20%	25.8	35	3.90	4.60
CS1280220MLB-□□□	22.0 ± 20%	28.5	39	3.60	4.10
CS1280270MLB-□□□	27.0 ± 20%	40.2	52	3.40	3.70
CS1280330MLB-□□□	33.0 ± 20%	44.3	57	3.00	3.30
CS1280390MLB-□□□	39.0 ± 20%	49.4	70	2.75	3.10
CS1280470MLB-□□□	47.0 ± 20%	62.7	80	2.50	2.80
CS1280560MLB-□□□	56.0 ± 20%	70.0	100	2.35	2.50
CS1280680MLB-□□□	68.0 ± 20%	85.3	120	2.10	2.30
CS1280820MLB-□□□	82.0 ± 20%	105.0	130	1.95	2.20
CS1280101MLB-□□□	100.0± 20%	124.0	150	1.70	2.00
CS1280121MLB-□□□	120.0 ± 20%	141.0	200	1.60	1.95
CS1280151MLB-□□□	150.0 ± 20%	196.0	270	1.42	1.90
CS1280181MLB-□□□	180.0 ± 20%	227.0	300	1.30	1.88
CS1280221MLB-□□□	220.0 ± 20%	280.0	400	1.16	1.70
CS1280271MLB-□□□	270.0 ± 20%	315.0	450	1.06	1.60
CS1280331MLB-□□□	330.0 ± 20%	427.0	600	0.95	1.40
CS1280391MLB-□□□	390.0 ± 20%	466.0	680	0.88	1.40
CS1280471MLB-□□□	470.0 ± 20%	558.0	880	0.79	1.25
CS1280561MLB-□□□	560.0 ± 20%	700.0	960	0.73	1.15
CS1280681MLB-□□□	680.0 ± 20%	846.0	1300	0.67	0.97
CS1280821MLB-□□□	820.0 ± 20%	1009.0	1500	0.60	0.94
CS1280102MLB-□□□	1000.0 ± 20%	1252.0	1700	0.55	0.80

- 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 ΔL/L0A=25% typ.
- 6). L Test Condition : 100KHz / 1V

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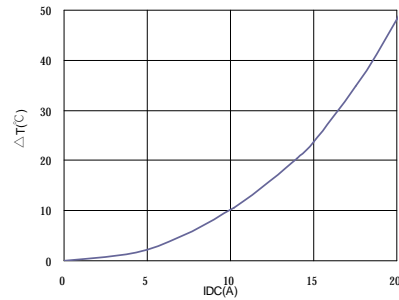
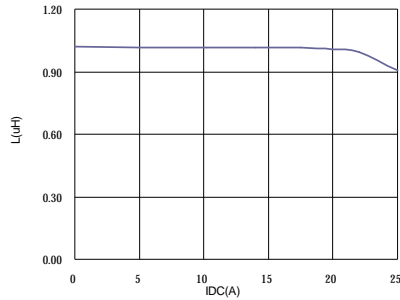


# SPECIFICATION FOR APPROVAL

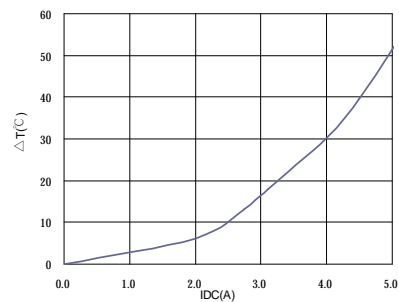
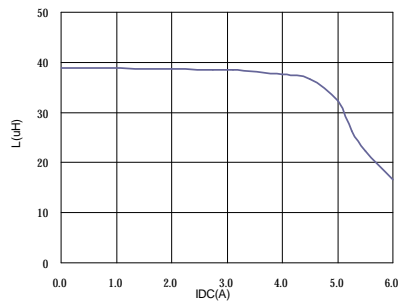
REF. :

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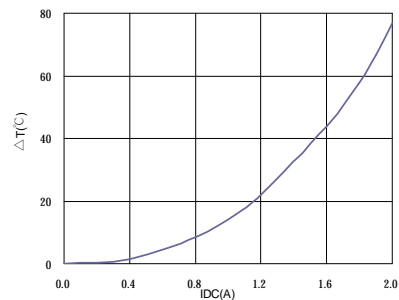
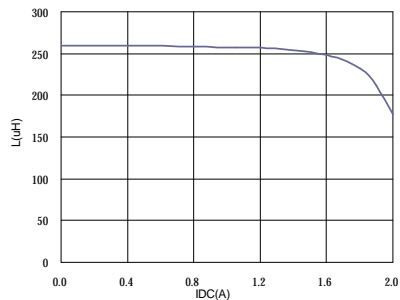
V . Curve :  
CS12801R1YL□



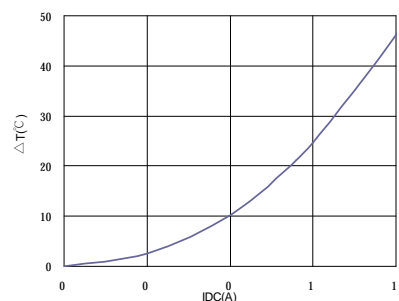
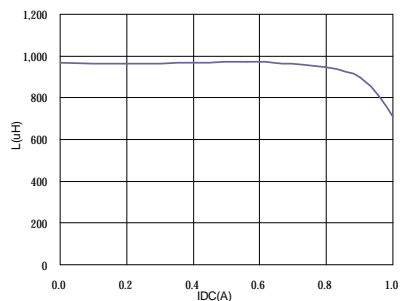
CS1280390ML□



CS1280271ML□



CS1280102ML□



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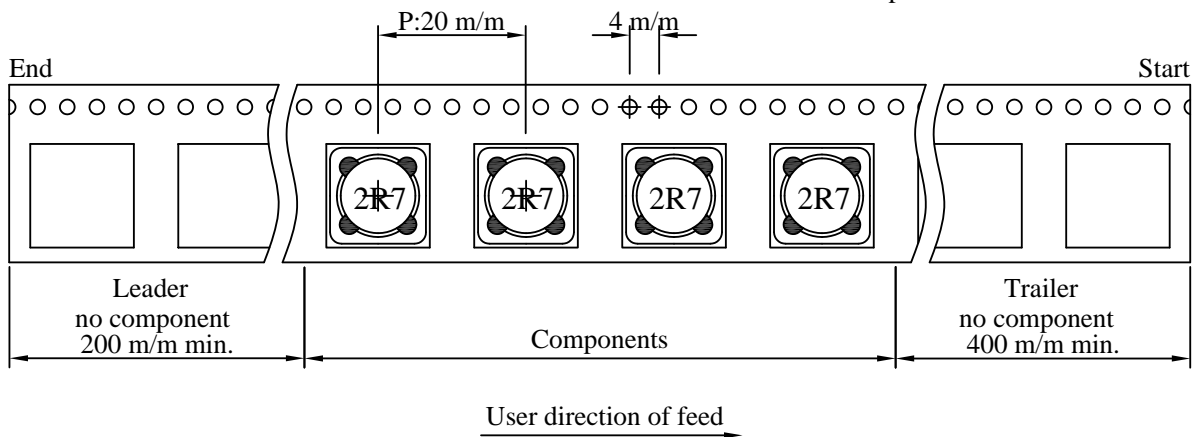
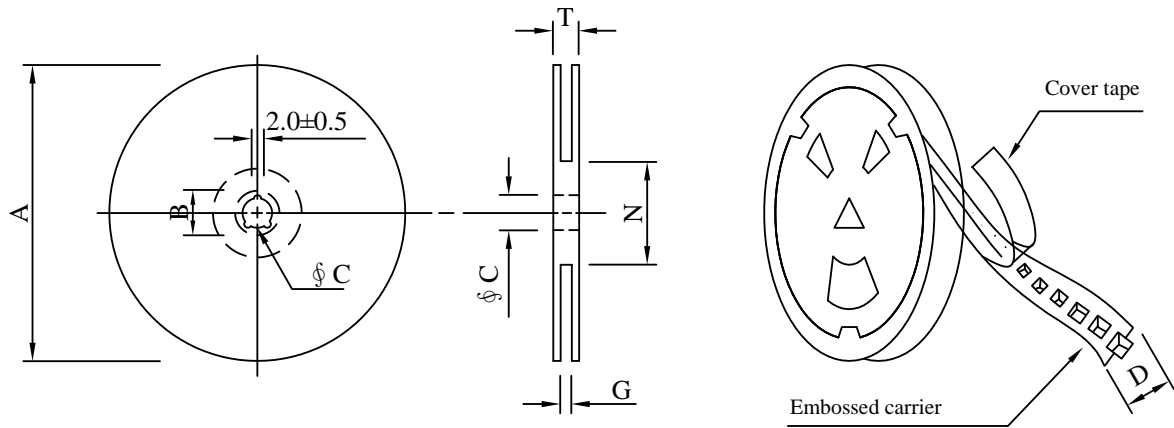
# SPECIFICATION FOR APPROVAL

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## VI . Packaging information :

### ( 1 ) Configuration



### ( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26 <sup>+0</sup>	60 <sup>-0</sup>	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	1,640	13 - 24	1,600	8.76	38 x 37 x 22

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# SPECIFICATION FOR APPROVAL

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## VII . Reliability test :

Item	Reference documents	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125°C 2.Time:96 hours.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
2.Temperature Cycling	JESD22 Method JA-104	1.Temperature: -40°C ~ 125°C 2.Number of cycle:96 cycle 3.Dwell time:30 minutes	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature:85±5 °C 2.Time:96 hours 3.Humidity: 85±5% RH.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
4.Operational Life	MIL-PRF-27	1.Temperature: 125°C 2.Time:96 hours. 3.Apply rated current.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
5.External Visual	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 Method JB-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 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 and electrical damage. 2.Inductance shall not change more than ±20%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210	1.Highest temperature : 245±5°C. 2.Time ( temp. ≥ 217°C ) : 60~150 Second. 3.IR reflow times : 3 times.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
10.Rated current	MIL-STD-202 Method 330	Apply rated current for 5 second.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
11.Temperature rise	MIL-PRF-27	Apply rated current for 10 minutes.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
12.Over load	MIL-PRF-27	Apply double as rated current for 5 minutes. (It's not application to some special design)	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
13.Solderability Test	J-STD-002	1.Baking in pre-testing : 155±5°C / 16Hours±30 min. 2.Peak temperature : 240±5°C 3.Time ( temp. ≥ 217°C ) : 60~150 second. 4.IR reflow times : 1 times.	The terminal shall be at least 95% covered with fresh solder.
14.Electrical Characteriazation	User Spec.	1.Operating temperature : -40°C~125°C 2.Room temperature : 25°C.	1.No mechanical and electrical damage. 2.Inductance shall not change more than ±20%.
15.Withstanding Voltage Test	MIL-STD-202 Method 201	1.DC:500V 2.Time:1minutes	1.During the test no breakdown. 2.The characteristic is normal after test.
16.Drop	JESD22-B111	Packaged & Drop down from 1m.In 1 angle Iridges & 2 surfaces orientation.	1.No case deformation or change in appearance. 2.Inductance shall not change more than ±20%.
17.Terminal Strength Test	JIS-C-6429	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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