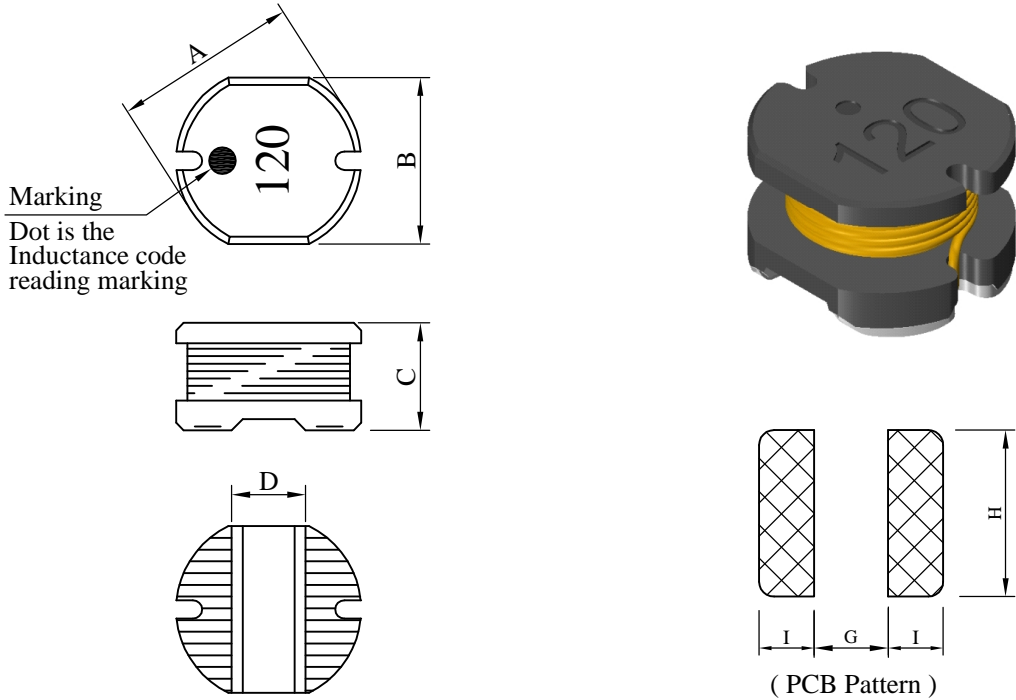


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SR0503□□□□L□-□□□		
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I . Configuration and dimensions :



Unit : m/m

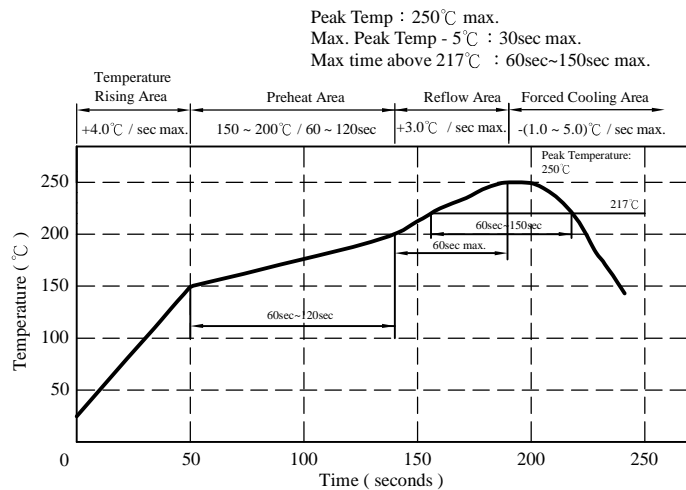
A	B	C	D	G	H	I
5.00 ±0.3	4.50 ±0.3	3.00 ±0.3	2.00 ref.	1.90 ref.	5.00 ref.	1.80 ref.

II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : H class
- c . Product weight : 0.210g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . 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 : 250°C .10 secs.



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IV . Electrical characteristics :

DWG No.	Inductance (μH)	Q ref.	Test Freq. (Hz)		SRF (MHz) nom	RDC (Ω) max.	IDC (A) max.
			L	Q			
SR0503R50YL□-□□□	0.5±30%	28	7.96M	7.960M	40.00	0.012	4.000
SR05031R0ML□-□□□	1.0±20%	28	7.96M	7.960M	40.00	0.016	3.000
SR05031R2ML□-□□□	1.2±20%	28	7.96M	7.960M	39.00	0.020	2.800
SR05031R8ML□-□□□	1.8±20%	28	7.96M	7.960M	38.00	0.030	2.500
SR05032R7ML□-□□□	2.7±20%	28	7.96M	7.960M	38.00	0.040	2.100
SR05033R3ML□-□□□	3.3±20%	25	7.96M	7.960M	37.00	0.056	1.900
SR05033R9ML□-□□□	3.9±20%	25	7.96M	7.960M	36.00	0.062	1.850
SR05034R7ML□-□□□	4.7±20%	25	7.96M	7.960M	35.00	0.068	1.700
SR05035R6ML□-□□□	5.6±20%	25	7.96M	7.960M	34.00	0.072	1.600
SR05036R8ML□-□□□	6.8±20%	25	7.96M	7.960M	33.00	0.088	1.450
SR05038R2ML□-□□□	8.2±20%	20	7.96M	7.960M	32.00	0.099	1.350
SR0503100ML□-□□□	10.0±20%	20	1k	2.520M	30.00	0.130	1.300
SR0503120ML□-□□□	12.0±20%	20	1k	2.520M	29.00	0.160	1.200
SR0503150ML□-□□□	15.0±20%	20	1k	2.520M	27.00	0.190	1.050
SR0503180ML□-□□□	18.0±20%	20	1k	2.520M	24.00	0.210	0.950
SR0503220ML□-□□□	22.0±20%	20	1k	2.520M	22.00	0.280	0.900
SR0503270ML□-□□□	27.0±20%	20	1k	2.520M	20.00	0.320	0.800
SR0503330KL□-□□□	33.0±10%	15	1k	2.520M	17.50	0.380	0.700
SR0503390KL□-□□□	39.0±10%	15	1k	2.520M	17.00	0.420	0.650
SR0503470KL□-□□□	47.0±10%	20	1k	2.520M	14.00	0.600	0.600
SR0503560KL□-□□□	56.0±10%	20	1k	2.520M	13.00	0.710	0.500
SR0503680KL□-□□□	68.0±10%	20	1k	2.520M	12.00	0.760	0.450
SR0503820KL□-□□□	82.0±10%	15	1k	2.520M	10.00	0.880	0.420
SR0503101KL□-□□□	100.0±10%	40	1k	0.796M	8.50	1.600	0.400
SR0503121KL□-□□□	120.0±10%	40	1k	0.796M	8.00	1.700	0.370
SR0503151KL□-□□□	150.0±10%	40	1k	0.796M	7.20	2.000	0.330
SR0503181KL□-□□□	180.0±10%	40	1k	0.796M	6.90	2.300	0.300
SR0503221KL□-□□□	220.0±10%	35	1k	0.796M	6.20	2.500	0.250
SR0503271KL□-□□□	270.0±10%	35	1k	0.796M	5.70	2.900	0.230
SR0503331KL□-□□□	330.0±10%	30	1k	0.796M	5.30	3.300	0.210
SR0503391KL□-□□□	390.0±10%	30	1k	0.796M	4.90	3.700	0.190
SR0503471KL□-□□□	470.0±10%	30	1k	0.796M	4.60	4.900	0.180
SR0503561KL□-□□□	560.0±10%	30	1k	0.796M	4.20	5.700	0.160
SR0503681KL□-□□□	680.0±10%	30	1k	0.796M	3.90	7.500	0.140
SR0503821KL□-□□□	820.0±10%	40	1k	0.796M	3.30	10.000	0.120
SR0503102KL□-□□□	1000.0±10%	40	1k	0.252M	3.10	11.500	0.110
SR0503122JL□-□□□	1200.0± 5%	40	1k	0.252M	3.00	12.000	0.063
SR0503152JL□-□□□	1500.0± 5%	40	1k	0.252M	2.40	13.000	0.059
SR0503182JL□-□□□	1800.0± 5%	40	1k	0.252M	2.20	15.000	0.055
SR0503222JL□-□□□	2200.0± 5%	40	1k	0.252M	2.30	22.000	0.053

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DWG No.	Inductance (μ H)	Q ref.	Test Freq. (Hz)		SRF (MHz) nom	RDC (Ω) max.	IDC (A) max.
			L	Q			
SR0503272JL□-□□□	2700.0 \pm 5%	40	1k	0.252M	2.10	26.000	0.050
SR0503332JL□-□□□	3300.0 \pm 5%	40	1k	0.252M	1.90	38.000	0.045
SR0503392JL□-□□□	3900.0 \pm 5%	40	1k	0.252M	1.50	40.000	0.042
SR0503472JL□-□□□	4700.0 \pm 5%	40	1k	0.252M	1.40	48.000	0.040
SR0503562JL□-□□□	5600.0 \pm 5%	40	1k	0.252M	1.30	72.000	0.038
SR0503682JL□-□□□	6800.0 \pm 5%	40	1k	0.252M	1.20	80.000	0.034
SR0503822JL□-□□□	8200.0 \pm 5%	40	1k	0.252M	1.00	92.000	0.030
SR0503103JL□-□□□	10000.0 \pm 5%	30	1k	79.60k	0.95	110.000	0.027
SR0503123JL□-□□□	12000.0 \pm 5%	30	1k	79.60k	0.85	148.000	0.025
SR0503153JL□-□□□	15000.0 \pm 5%	30	1k	79.60k	0.80	168.000	0.020

- 1). □ : Packaging information : □ Code
- 2). "- □□□ " : Reference code
- 3). Electrical specifications at 25°C
- 4). IDC base on $\Delta L/L0A=10\%$ max.
& Temp. rise 40°C max.

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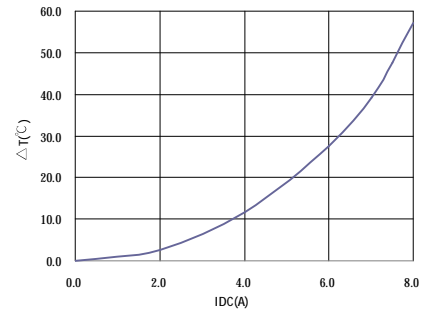
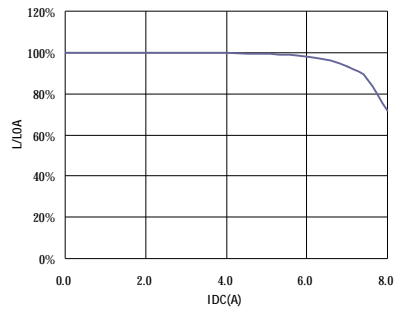
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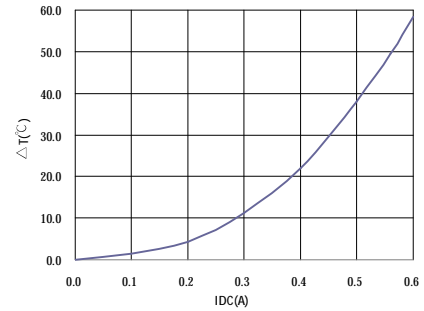
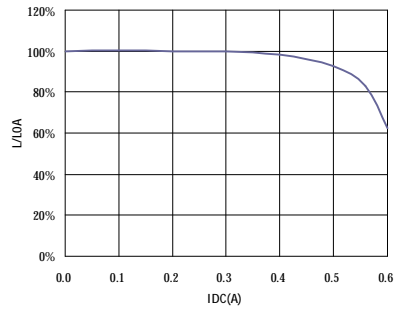
PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SR0503□□□□L□-□□□		
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V . Curve :

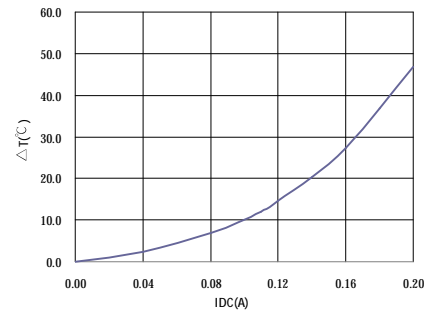
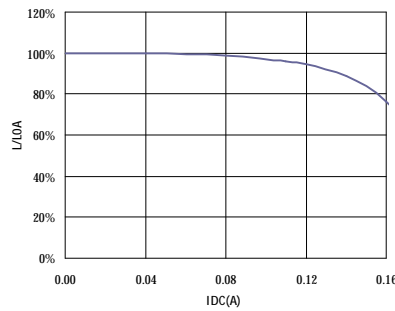
SR0503R50YL□



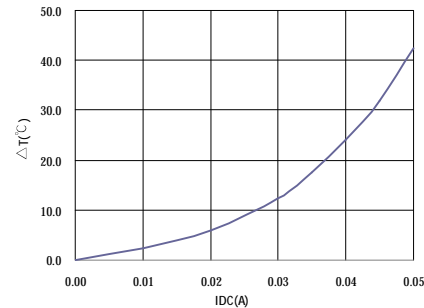
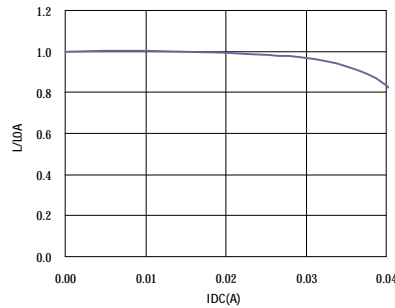
SR0503101KL□



SR0503102KL□



SR0503153JL□



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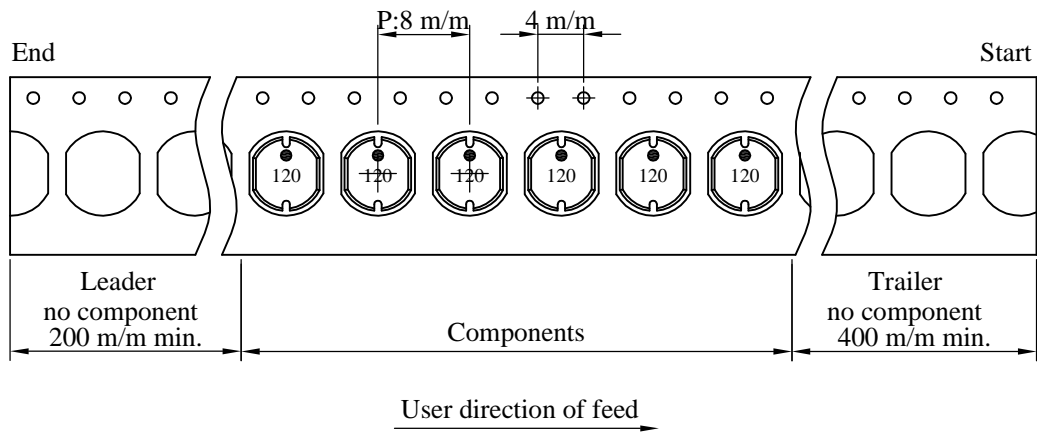
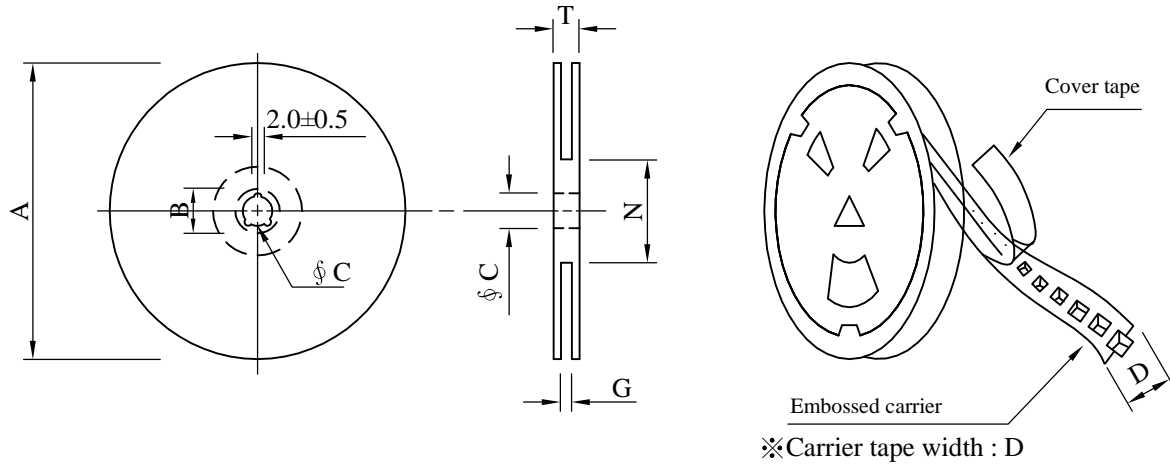
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VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 12	178	21±0.8	13	12	14 ⁺⁰	50 ⁻⁰	16.5
13 - 12	330	21±0.8	13±0.5	12	14 ⁺⁰	50 ⁻⁰	18.4

(3) Q'TY & G.W. PER PACKAGE

Code	Inner : Reel			Outer : Carton		
	QTY (pcs)	G.W. (gw)	Style	QTY (pcs)	G.W. (Kg)	Size (cm)
B	500	210	07 - 12	20,000	9.6	42 x 41 x 24
C	2000	770	13 - 12	16,000	7.4	38 x 37 x 22

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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 ±10%.
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 ±10%.
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 ±10%.
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 ±10%.
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 apperance. 2.No marking blurred. 3.Inductance shall not change more than ±10%.
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 ±10%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature : 250±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 ±10%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Saturation current	Inductance shall not drop more than 10% max.
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 ℃ max.
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 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 ±10%.
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time : 6 times. (Every side ofsample 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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