SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	SMD Power Inductor	ABC'S DWG NO.	SQ4532□□□□2□-□□□		
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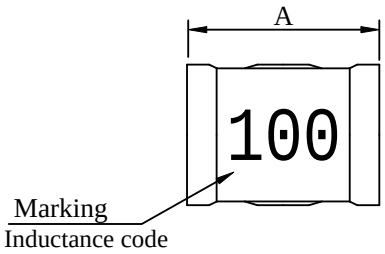
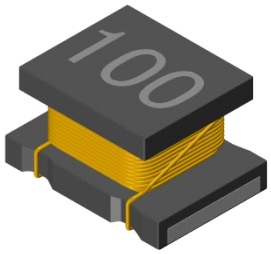
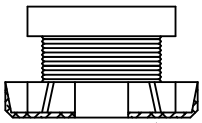
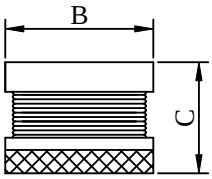
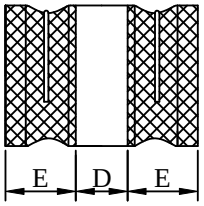
I．Configuration and dimensions：

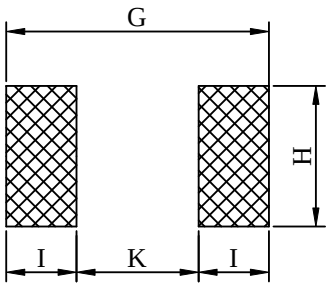












（PCB Pattern）

Unit：mm

A	B	C	D	E	G	H	I	K
4.50 ±0.3	3.20 ±0.3	2.60 ±0.4	1.30 typ.	1.60 ref.	5.40 ref.	3.60 ref.	2.00 ref.	1.40 ref.

II．Description：

a．Ferrite drum core construction

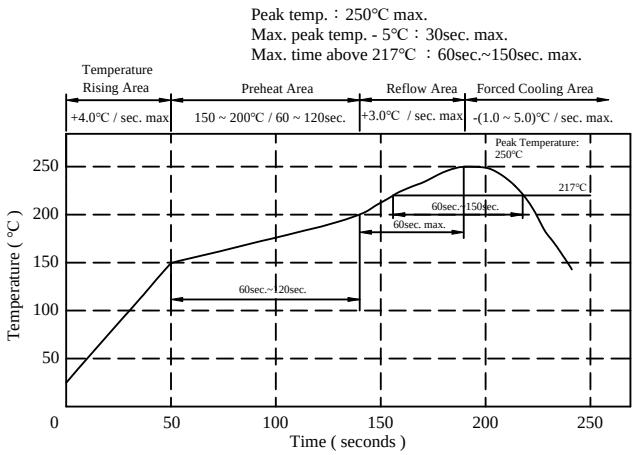
b．Enamelled copper wire：H class

c．Product weight：0.129 g（ref.）

d．Moisture sensitivity Level 1

e．Products comply with RoHS' requirements

f．Halogen free



III．General specification：

a．Storage temp.：-40℃ ----+125℃

b．Operating temp.：-40℃----+125℃

（Temp. rise included）

c．Resistance to solder heat：250℃.10 sec.

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IV . Electrical characteristics：

DWG. No.	Inductance (μH)	Test Freq. (Hz) L	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
SQ45321R0M2□-□□□	1.00 ±20%	1M	120.0	0.20	500
SQ45321R2M2□-□□□	1.20 ±20%	1M	100.0	0.20	500
SQ45321R5M2□-□□□	1.50 ±20%	1M	85.0	0.30	500
SQ45321R8M2□-□□□	1.80 ±20%	1M	75.0	0.30	500
SQ45322R2M2□-□□□	2.20 ±20%	1M	62.0	0.30	500
SQ45322R7M2□-□□□	2.70 ±20%	1M	53.0	0.32	500
SQ45323R3M2□-□□□	3.30 ±20%	1M	47.0	0.35	500
SQ45323R9M2□-□□□	3.90 ±20%	1M	41.0	0.38	500
SQ45324R7M2□-□□□	4.70 ±20%	1M	38.0	0.40	500
SQ45325R6M2□-□□□	5.60 ±20%	1M	33.0	0.47	500
SQ45326R8M2□-□□□	6.80 ±20%	1M	31.0	0.50	450
SQ45328R2M2□-□□□	8.20 ±20%	1M	27.0	0.56	450
SQ4532100M2□-□□□	10.00 ±20%	1M	23.0	0.56	400
SQ4532120M2□-□□□	12.00 ±20%	1M	21.0	0.62	380
SQ4532150M2□-□□□	15.00 ±20%	1M	19.0	0.73	360
SQ4532180M2□-□□□	18.00 ±20%	1M	17.0	0.82	340
SQ4532220K2□-□□□	22.00 ±10%	1M	15.0	0.94	320
SQ4532270K2□-□□□	27.00 ±10%	1M	14.0	1.10	300
SQ4532330K2□-□□□	33.00 ±10%	1M	12.0	1.20	270
SQ4532390K2□-□□□	39.00 ±10%	1M	11.0	1.40	240
SQ4532470K2□-□□□	47.00 ±10%	1M	10.0	1.50	220
SQ4532560K2□-□□□	56.00 ±10%	1M	9.3	1.70	200
SQ4532680K2□-□□□	68.00 ±10%	1M	8.4	1.90	180
SQ4532820K2□-□□□	82.00 ±10%	1M	7.5	2.20	170
SQ4532101K2□-□□□	100.00 ±10%	1M	6.8	2.50	160
SQ4532121K2□-□□□	120.00 ±10%	1M	6.2	3.00	150
SQ4532151K2□-□□□	150.00 ±10%	1M	5.5	3.70	130
SQ4532181K2□-□□□	180.00 ±10%	1M	5.0	4.50	120
SQ4532221K2□-□□□	220.00 ±10%	1M	4.5	5.40	110
SQ4532271K2□-□□□	270.00 ±10%	1M	4.0	6.80	100
SQ4532331K2□-□□□	330.00 ±10%	1M	3.6	8.20	95
SQ4532391K2□-□□□	390.00 ±10%	1M	3.3	9.70	90
SQ4532471K2□-□□□	470.00 ±10%	1K	3.0	11.80	80
SQ4532561K2□-□□□	560.00 ±10%	1K	2.7	14.50	70
SQ4532681K2□-□□□	680.00 ±10%	1K	2.5	17.00	65
SQ4532821K2□-□□□	820.00 ±10%	1K	2.2	20.50	60
SQ4532102K2□-□□□	1000.00 ±10%	1K	2.0	25.00	50
SQ4532122K2□-□□□	1200.00 ±10%	1K	1.8	30.00	45
SQ4532152K2□-□□□	1500.00 ±10%	1K	1.6	37.00	40
SQ4532182K2□-□□□	1800.00 ±10%	1K	1.5	45.00	35
SQ4532222K2□-□□□	2200.00 ±10%	1K	1.3	50.00	30

1). Electrical specifications at 25℃

2). IDC base on Temp. rise 20℃ max. & △ L/L0A=10% max.

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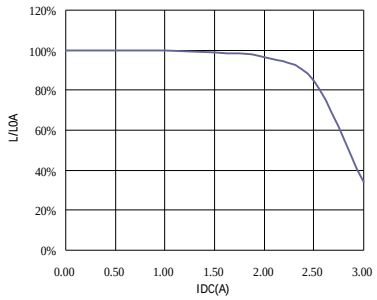
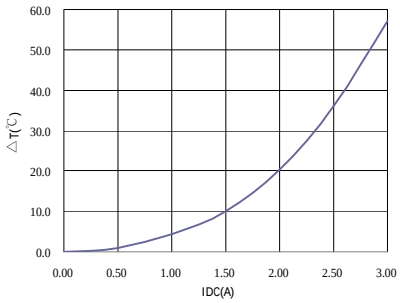
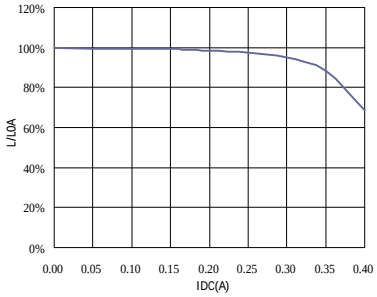
Ⅴ． Curve：

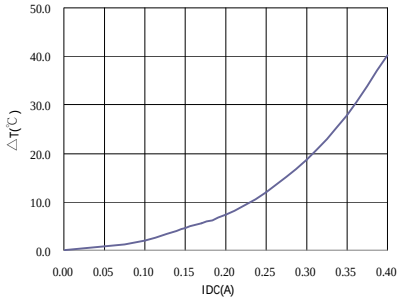
SQ45321R8M2□



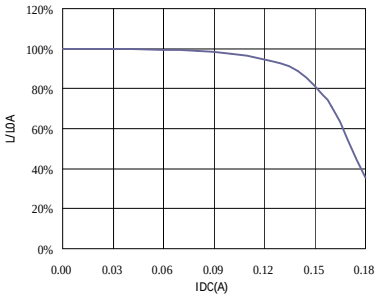


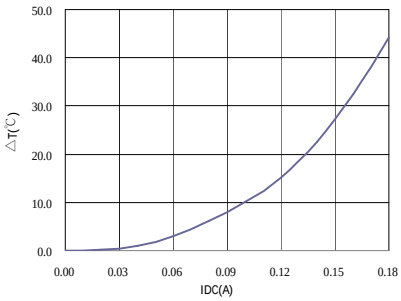
SQ4532820K2□



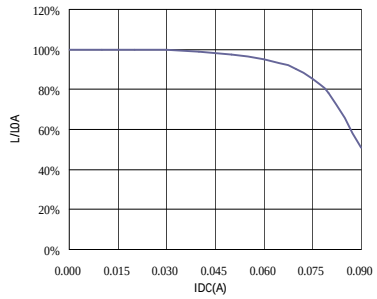


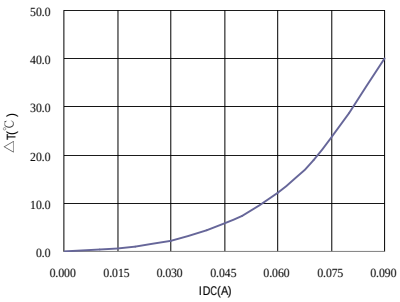
SQ4532471K2□





SQ4532222K2□





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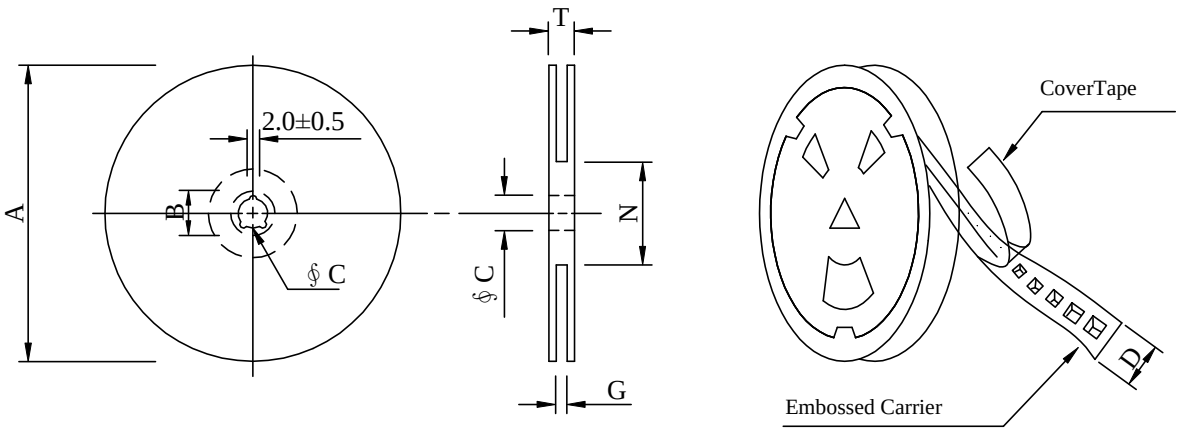
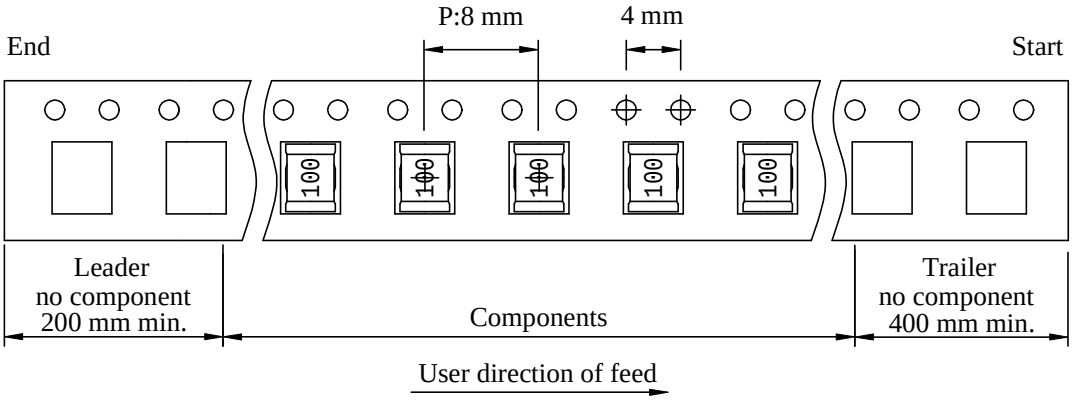
VI . Packaging information :

(1) Configuration



※Carrier Tape Width : D



(2) Dimensions

Unit:mm

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		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (kg)	SIZE (cm)
B	500	130	07 - 12	20,000	7.20	42 x 41 x 24
C	2,000	540	13 - 12	16,000	6.50	38 x 37 x 22

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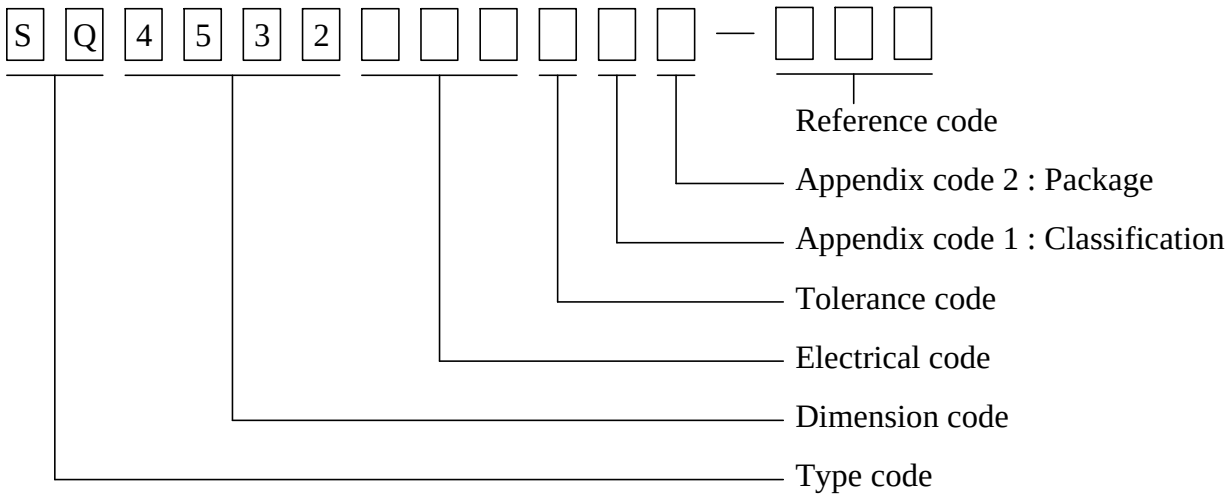
VII．Drawing number expression：



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	500 pcs	
C	T /R (Reel package)	UCT	Antistatic	Antistatic	2,000 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 ±10%.
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 ±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 apperarance. 2.No marking blurred. 3.Inductance shall not change more than ±10%.
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 ±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 Second. 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 second. 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 20℃ 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 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 ±10%.
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.