PREMO RFID Components

PSC2505 & PSC2507

SMD Power Inductors Unshielded

RoHS COMPLIANT 2002/95/EC

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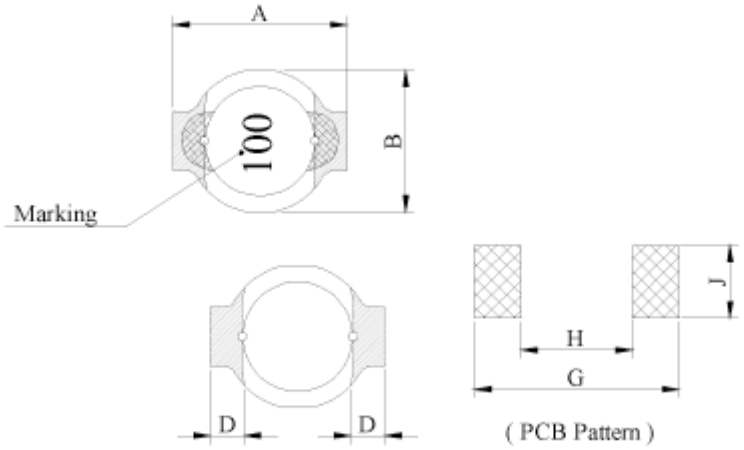
1. Configuration & Dimensions



Series	Dimensions [mm]									
	A	B	C	D(typ.)	E(typ.)	F(typ.)	G(ref.)	H(ref.)	I(ref.)	J(ref.)
PSC2505	6.40±0.3	5.50±0.3	1.65±0.15	0.80	2.00	4.50	6.80	4.00	1.40	2.60
PSC2507	6.40±0.3	5.50±0.3	2.00±0.15	0.80	2.00	4.50	6.80	4.00	1.40	2.60

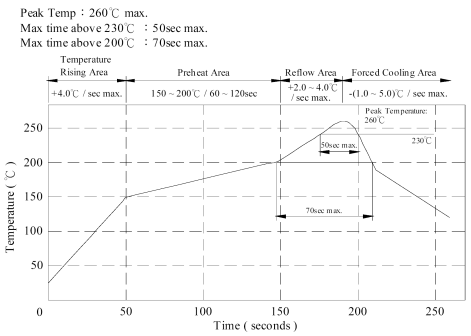
2. Schematic Diagram

3. Materials

a.- Core : Ferrite DR core
b.- Base : Ceramic base
c.- Wire : Enamelled copper wire (class F)
d.- Terminal : W / Ni / Au
e.- Adhesive : Epoxy resin
f.- Remark : Lead content 200ppm max. include ferrite

4. General Specification

a.- Temp. rise : 40°C max.
b.- Storage temp. : -40°C ~ +125°C
c.- Operating temp. : -40°C ~ +105°C
d.- Resistance to solder heat : 260°C. 10 secs



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5. Electrical Characteristics

PSC2505 (1.2µH – 330µH)

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC (Ω) max.	Irms (A) ΔT=40°C max.	Isat (A) ΔL/L0A=10% typ.
			L (KHz)	Q (MHz)				
PSC2505 – 1R2M	1.2±20%	17	100	7.96	120.0	0.09	2.30	3.40
PSC2505 – 1R5M	1.5±20%	18	100	7.96	110.0	0.10	2.00	3.00
PSC2505 – 2R5M	2.5±20%	14	100	7.96	85.0	0.12	1.70	2.40
PSC2505 – 3R3M	3.3±20%	16	100	7.96	75.0	0.15	1.50	2.20
PSC2505 – 3R9M	3.9±20%	15	100	7.96	70.0	0.20	1.40	2.10
PSC2505 – 4R7M	4.7±20%	15	100	7.96	65.0	0.22	1.30	1.90
PSC2505 – 5R6M	5.6±20%	14	100	7.96	60.0	0.25	1.25	1.80
PSC2505 – 6R8M	6.8±20%	11	100	7.96	55.0	0.27	1.20	1.65
PSC2505 – 8R2M	8.2±20%	14	100	7.96	50.0	0.32	1.08	1.45
PSC2505 – 100M	10.0±20%	13	100	2.52	45.0	0.35	1.00	1.25
PSC2505 – 120M	12.0±20%	12	100	2.52	40.0	0.40	0.90	1.15
PSC2505 – 150M	15.0±20%	13	100	2.52	32.0	0.56	0.80	1.00
PSC2505 – 220M	22.0±20%	14	100	2.52	26.0	0.70	0.70	0.90
PSC2505 – 270M	27.0±20%	18	100	2.52	25.0	1.00	0.55	0.80
PSC2505 – 330K	33.0±10%	17	100	2.52	23.0	1.10	0.50	0.72
PSC2505 – 470K	47.0±10%	14	100	2.52	20.0	1.45	0.46	0.67
PSC2505 – 560K	56.0±10%	16	100	2.52	18.0	2.00	0.36	0.52
PSC2505 – 680K	68.0±10%	24	100	2.52	15.0	2.40	0.32	0.48
PSC2505 – 820K	82.0±10%	23	100	2.52	14.0	2.70	0.30	0.44
PSC2505 – 101K	100.0±10%	50	100	0.796	13.0	3.00	0.28	0.42
PSC2505 – 121K	120.0±10%	45	100	0.796	12.0	3.50	0.26	0.40
PSC2505 – 151K	150.0±10%	55	100	0.796	10.0	4.80	0.24	0.34
PSC2505 – 181K	180.0±10%	55	100	0.796	9.0	5.50	0.22	0.32
PSC2505 – 221K	220.0±10%	50	100	0.796	8.0	8.00	0.18	0.26
PSC2505 – 271K	270.0±10%	60	100	0.796	7.0	9.00	0.15	0.23
PSC2505 – 331K	330.0±10%	60	100	0.796	6.0	10.0	0.13	0.22

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PSC2507 (1.2µH – 470µH)

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC (Ω) max.	Irms (A) ΔT=40°C max.	Isat (A) ΔL/L0A=10% typ.
			L (KHz)	Q (MHz)				
PSC2507 – 1R2M	1.2±20%	15	100	7.96	130.0	0.036	2.60	3.20
PSC2507 – 1R5M	1.5±20%	13	100	7.96	120.0	0.042	2.40	2.80
PSC2507 – 1R8M	1.8±20%	12	100	7.96	105.0	0.046	2.20	2.60
PSC2507 – 2R5M	2.5±20%	16	100	7.96	85.0	0.065	2.00	2.40
PSC2507 – 3R5M	3.5±20%	18	100	7.96	70.0	0.100	1.70	2.20
PSC2507 – 4R7M	4.7±20%	15	100	7.96	60.0	0.135	1.50	1.90
PSC2507 – 5R6M	5.6±20%	13	100	7.96	55.0	0.140	1.40	1.70
PSC2507 – 6R8M	6.8±20%	13	100	7.96	53.0	0.180	1.30	1.50
PSC2507 – 8R2M	8.2±20%	12	100	7.96	50.0	0.200	1.20	1.40
PSC2507 – 100M	10.0±20%	14	100	2.52	42.0	0.260	1.10	1.30
PSC2507 – 120M	12.0±20%	14	100	2.52	38.0	0.280	1.00	1.20
PSC2507 – 150M	15.0±20%	13	100	2.52	35.0	0.350	0.90	1.10
PSC2507 – 180M	18.0±20%	12	100	2.52	25.0	0.400	0.85	0.90
PSC2507 – 220M	22.0±20%	14	100	2.52	26.0	0.520	0.80	0.85
PSC2507 – 270M	27.0±20%	11	100	2.52	25.0	0.600	0.75	0.80
PSC2507 – 330K	33.0±10%	12	100	2.52	23.0	0.720	0.62	0.75
PSC2507 – 390K	39.0±10%	12	100	2.52	20.0	0.780	0.56	0.65
PSC2507 – 470K	47.0±10%	12	100	2.52	18.0	1.130	0.50	0.60
PSC2507 – 560K	56.0±10%	15	100	2.52	16.0	1.400	0.46	0.52
PSC2507 – 680K	68.0±10%	20	100	2.52	14.0	1.700	0.40	0.48
PSC2507 – 820K	82.0±10%	18	100	2.52	13.0	1.850	0.36	0.42
PSC2507 – 101K	100.0±10%	35	100	0.796	11.0	2.800	0.32	0.38
PSC2507 – 121K	120.0±10%	35	100	0.796	9.0	2.900	0.28	0.34
PSC2507 – 151K	150.0±10%	45	100	0.796	8.5	4.500	0.24	0.32
PSC2507 – 181K	180.0±10%	50	100	0.796	7.5	5.200	0.22	0.30
PSC2507 – 221K	220.0±10%	55	100	0.796	6.6	7.500	0.20	0.28
PSC2507 – 271K	270.0±10%	55	100	0.796	6.0	9.200	0.18	0.24
PSC2507 – 331K	330.0±10%	55	100	0.796	5.0	10.500	0.16	0.20
PSC2507 – 391K	390.0±10%	60	100	0.796	4.0	11.500	0.14	0.18
PSC2507 – 471K	470.0±10%	60	100	0.796	3.0	12.600	0.13	0.16

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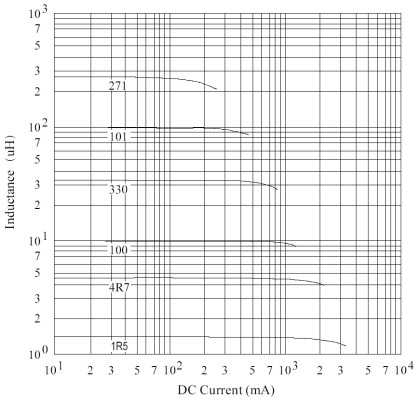
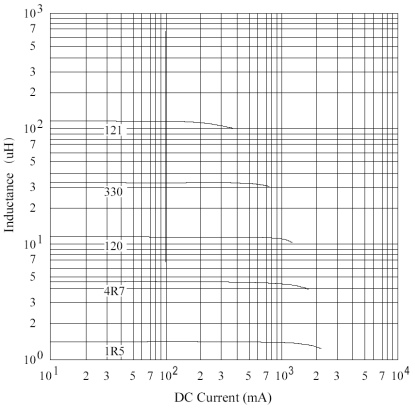
6. Curve

Inductance VS. DC Current Curve

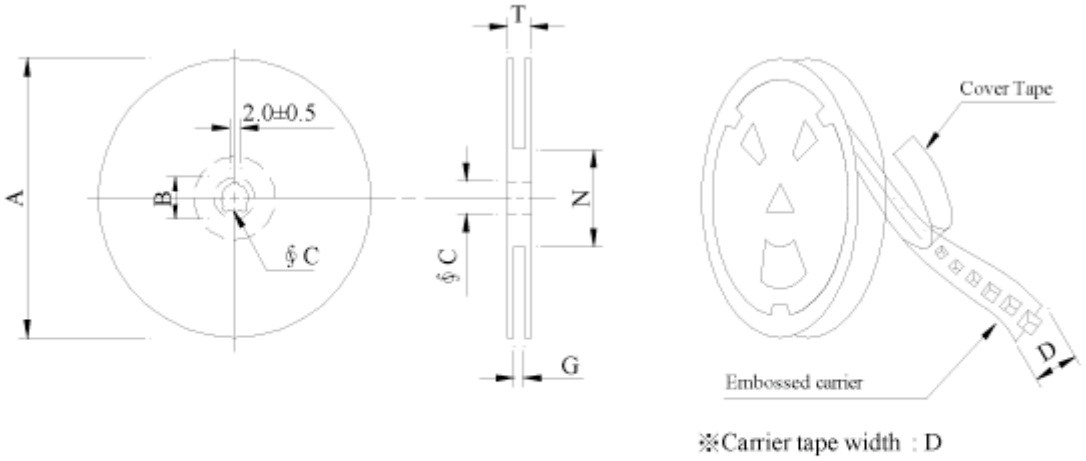
PSC2505

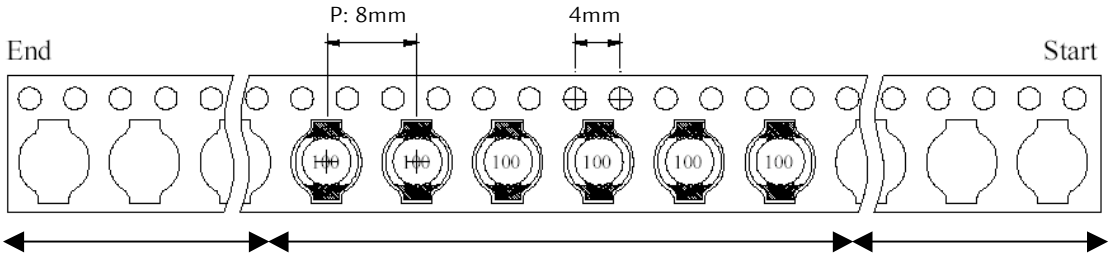


PSC2507



7. Packaging Information





Leader
no component
200 mm min.

Components

Trailer
no component
400 mm min.

User direction of feed

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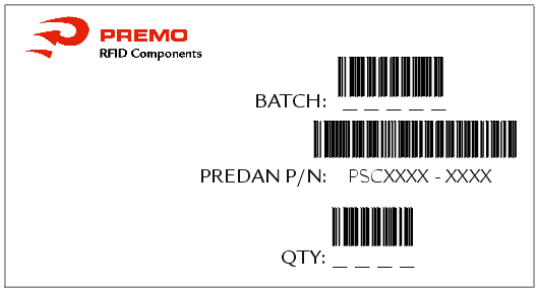
Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 – 12	178	21±0.8	13±0.5	12	14^{+0}	50^{-0}	18.4

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PSC2505	800	250	07 – 12	32,000	11.5	42 x 41 x 24
PSC2507	800	250	07 – 12	32,000	11.5	42 x 41 x 24

8. Labelling



9. Reliability Test

Test item	Specification	Test condition
Solderability	More than 90% of the terminal electrode shall be covered with fresh solder	Preheat : 150±25% for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 4±1 seconds
Thermal shock test (Temp. cycle)	Inductance shall not change more than ±20%	Room temp. / 15 minutes → -25±2°C / 30 minutes Room temp. / 15 minutes → 85±2°C / 30 minutes Total : 50 cycles
Humidity Resistance test		Temperature : 40±2°C Humidity : 90 ~ 95% Applied current : Per specifications Time : 500 hours
High temp. Resistance test		Temperature : 105±2°C Applied current : Per specifications Time : 500 hours

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10. Edition Control

Edition	Date	Change description	Made by
1st	31/08/06	Update Specification	Pablo Pozo