PREMO RFID Components

PS1004 & PS1307
SMD Power Inductors Shielded

RoHS COMPLIANT 2002/95/EC

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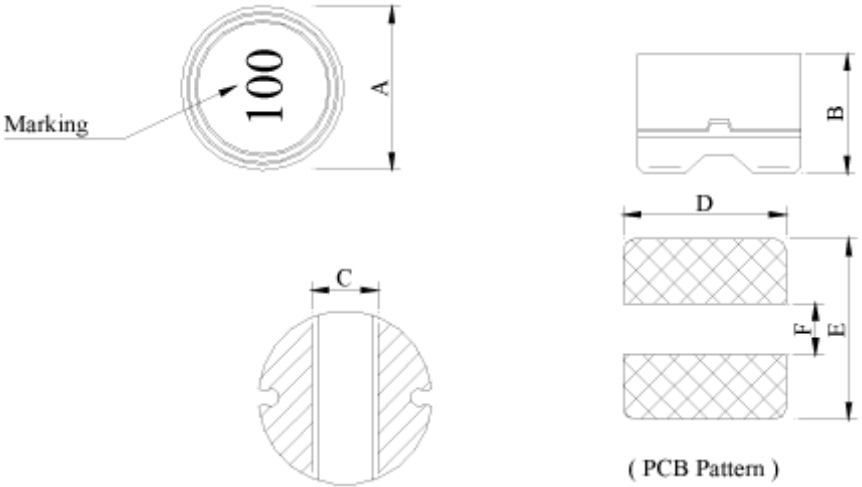
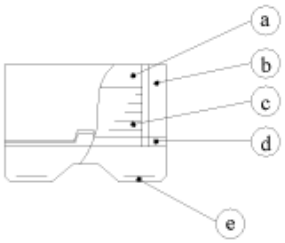
1. Configuration & Dimensions



2. Schematic Diagram

3. Materials

a.- Core : Ferrite DR Core
b.- Core : Ferrite RI Core
c.- Wire : Enamelled copper wire (class F)
d.- Plastic : GAP Spacer
e.- Terminal : Ag / Ni / Sn
f.- Remark : Lead content 200ppm max. include ferrite



4. General Specification

a.- Temp. rise : 40°C typ.

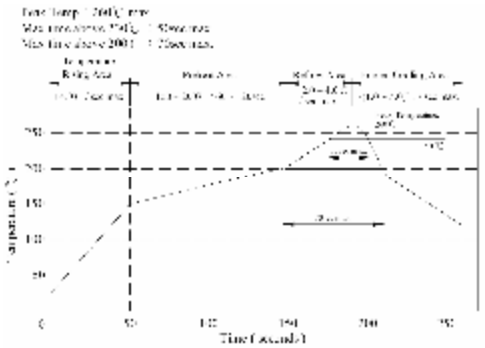
b.- Rated current : Base on temp. rise

& ΔL/L0A = { 25% typ. (PS1004) ; 10% typ. (PS1307) }

c.- Storage temp. : -40°C ~ +125°C

d.- Operating temp. : -40°C ~ +105°C

e.- Resistance to solder heat : 260°C. 10 secs



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5. Electrical Characteristics

PS1004 (10µH – 1500µH)

DWG No.	Inductance (mH)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC (W) max.	Irms (A) typ.	Isat (A) typ.
			L (KHz)	Q (MHz)				
PS1004 – 100M	10±20%	26	100	2.52	30.0	0.035	3.50	3.00
PS1004 – 150M	15±20%	35	100	2.52	26.0	0.058	2.70	2.40
PS1004 – 220M	22±20%	30	100	2.52	20.0	0.065	2.50	2.10
PS1004 – 330M	33±20%	30	100	2.52	15.0	0.095	2.00	1.60
PS1004 – 470L	47±15%	28	100	2.52	12.0	0.132	1.80	1.40
PS1004 – 680L	68±15%	26	100	2.52	10.9	0.180	1.50	1.20
PS1004 – 101L	100±15%	28	100	0.796	9.0	0.270	1.10	1.00
PS1004 – 151L	150±15%	32	100	0.796	6.5	0.420	0.90	0.78
PS1004 – 221L	220±15%	33	100	0.796	5.5	0.590	0.72	0.65
PS1004 – 331L	330±15%	25	100	0.796	4.8	0.800	0.60	0.54
PS1004 – 471K	470±10%	24	100	0.796	3.6	1.200	0.50	0.47
PS1004 – 681K	680±10%	30	100	0.796	2.7	1.680	0.42	0.38
PS1004 – 102K	1000±10%	65	100	0.252	2.1	2.650	0.35	0.32
PS1004 – 152K	1500±10%	75	100	0.252	1.8	4.000	0.26	0.22

PS1307 (10µH – 1000µH)

DWG No.	Inductance (mH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (W) max.	Irms (A) typ.	Isat (A) typ.
			L (KHz)	Q (MHz)				
PS1307 – 100M	10±20%	46	100	2.52	15.0	0.04	4.60	6.50
PS1307 – 150M	15±20%	45	100	2.52	14.0	0.05	4.00	5.60
PS1307 – 220M	22±20%	42	100	2.52	13.0	0.06	3.50	4.50
PS1307 – 330M	33±20%	50	100	2.52	12.0	0.08	2.80	3.70
PS1307 – 470M	47±20%	50	100	2.52	10.0	0.12	2.40	3.20
PS1307 – 680M	68±20%	48	100	2.52	8.0	0.16	2.00	2.70
PS1307 – 101M	100±20%	48	100	0.796	6.0	0.21	1.60	2.00
PS1307 – 151M	150±20%	42	100	0.796	5.0	0.30	1.30	1.70
PS1307 – 221M	220±20%	38	100	0.796	4.0	0.50	1.10	1.50
PS1307 – 331M	330±20%	38	100	0.796	3.0	0.75	0.80	1.20
PS1307 – 471M	470±20%	36	100	0.796	2.5	1.10	0.72	0.95
PS1307 – 681M	680±20%	36	100	0.796	2.0	1.45	0.60	0.85
PS1307 – 102M	1000±20%	32	100	0.252	1.5	2.10	0.50	0.70

[Inductance tested at 0.1V] [Irms base on temp. rise 40°C] [Isat base on ΔL/L0A = 25%(PS1004), 10%(PS1307)]

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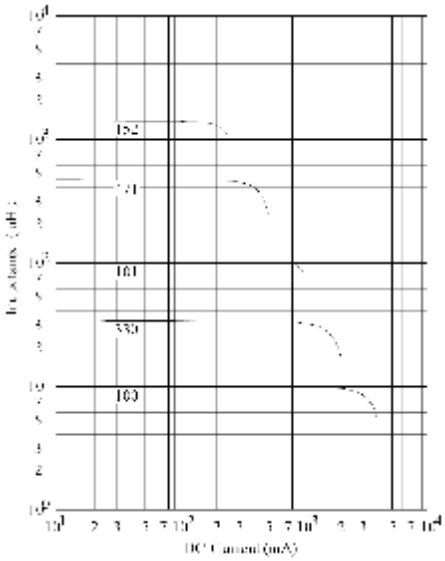
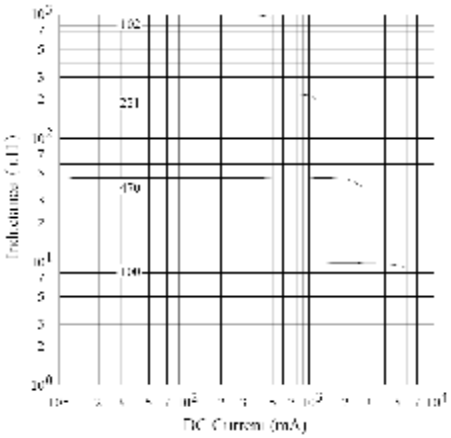
6. Curve

Inductance VS. DC Current Curve

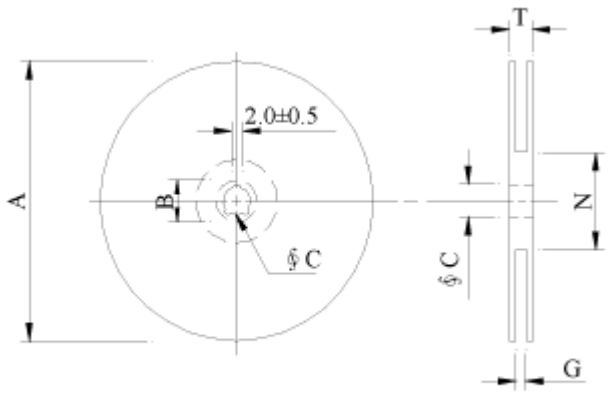
PS1004

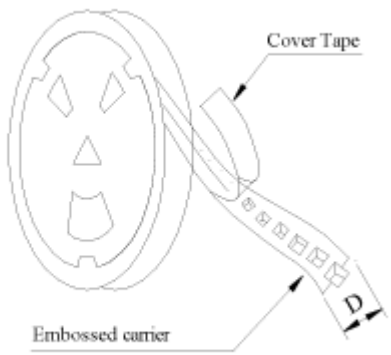


PS1307



7. Packaging Information





※Carrier tape width : D

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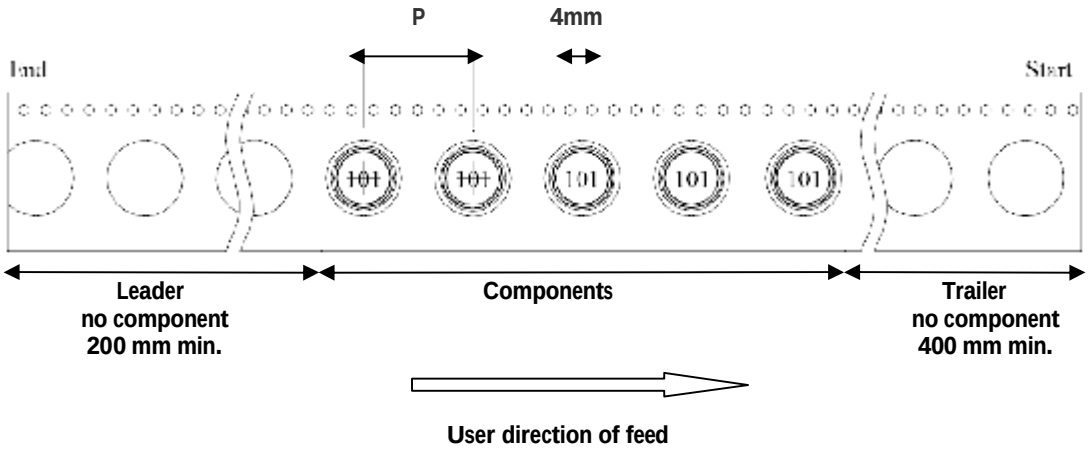
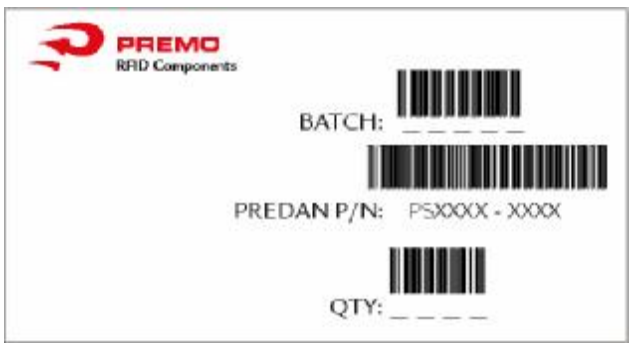


(PS1004 à P = 16mm) (PS1307 à P = 20mm)

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 – 24	330	21±0.8	13±0.5	24	26^{+0}	50^{-0}	30.4

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PS1004	800	1,050	13 – 24	3,200	4.2	40 x 40 x 24
PS1307	400	1,800	13 – 24	1,600	9.5	40 x 40 x 24

8. Labelling



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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

10. Edition Control

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