PS1608 & PS4530

SMD Power Inductors Shielded

RoHS COMPLIANT 2002/95/EC

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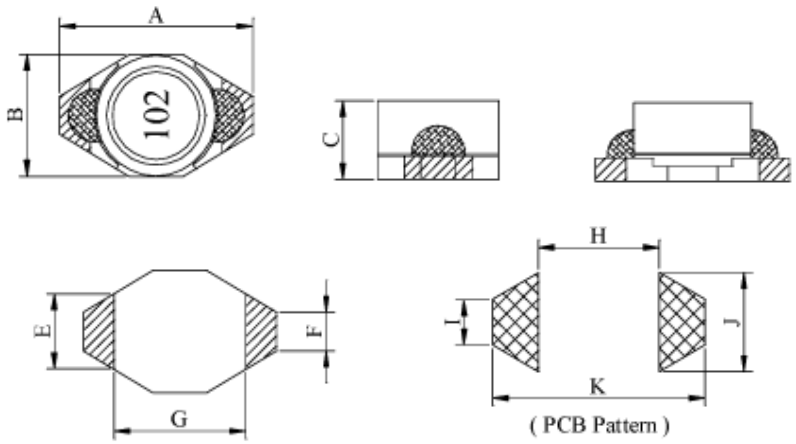
1. Configuration & Dimensions

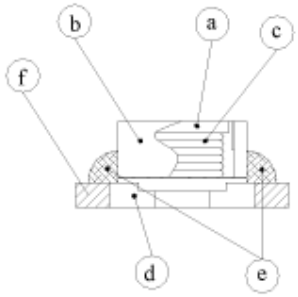


Series	Dimensions [mm]									
	A	B(max.)	C	E(ref.)	F(ref.)	G(ref.)	H(ref.)	I(ref.)	J(ref.)	K(ref.)
PS1608	6.50±0.2	4.40	2.90±0.15	2.50	1.24	4.45	4.10	1.60	3.00	7.00
PS4530	6.50±0.2	4.40	3.05 max.	2.50	1.24	4.45	4.10	1.60	3.00	7.00

2. Schematic Diagram

3. Materials

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



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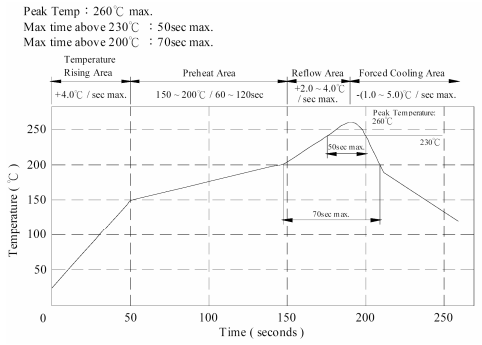
4. General Specification

a.- Temp. rise : 30°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



5. Electrical Characteristics

PS1608 (1µH – 10000µH)

DWG No.	Inductance (µH)	Q min.	Test Freq.		SRF (MHz) nom.	RDC (Ω) max.	Irms (A) max.	Isat (A) typ.
			L (KHz)	Q (KHz)				
PS1608 – 1R0M	1.0±20%	10	100	500	250	0.040	3.000	1.200
PS1608 – 1R5M	1.5±20%	20	100	500	125	0.045	2.800	0.920
PS1608 – 2R2M	2.2±20%	25	100	500	120	0.050	1.800	0.800
PS1608 – 3R3M	3.3±20%	40	100	200	120	0.055	1.600	0.620
PS1608 – 4R7M	4.7±20%	40	100	200	105	0.060	1.400	0.500
PS1608 – 6R8M	6.8±20%	40	100	200	50	0.065	1.200	0.400
PS1608 – 100M	10.0±20%	40	100	200	38	0.075	1.000	0.320
PS1608 – 150M	15.0±20%	40	100	100	33	0.090	0.800	0.260
PS1608 – 220M	22.0±20%	40	100	100	25	0.110	0.700	0.240
PS1608 – 330M	33.0±20%	40	100	100	20	0.190	0.600	0.160
PS1608 – 470M	47.0±20%	40	100	100	20	0.230	0.500	0.140
PS1608 – 680M	68.0±20%	40	100	100	15	0.290	0.400	0.120
PS1608 – 101M	100.0±20%	40	100	100	10	0.480	0.300	0.100
PS1608 – 151M	150.0±20%	40	100	100	9	0.590	0.260	0.080
PS1608 – 221M	220.0±20%	40	100	100	6	0.770	0.220	0.070
PS1608 – 331M	330.0±20%	40	100	100	5	1.400	0.200	0.050
PS1608 – 471M	470.0±20%	40	100	100	4	1.800	0.190	0.045
PS1608 – 681M	680.0±20%	40	100	100	3	2.200	0.180	0.040
PS1608 – 102M	1000.0±20%	40	100	100	2	3.400	0.150	0.028
PS1608 – 152M	1500.0±20%	50	100	100	2	4.200	0.120	0.024
PS1608 – 222M	2200.0±20%	50	100	100	2	8.500	0.100	0.020

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PS1608 (1µH – 10000µH)

PS1608 – 332M	3300.0±20%	50	100	100	1	11.000	0.080	0.018
PS1608 – 472M	4700.0±20%	50	100	100	1	13.900	0.060	0.014
PS1608 – 682M	6800.0±20%	50	100	100	1	25.000	0.040	0.012
PS1608 – 103M	10000.0±20%	50	100	100	0.8	32.800	0.020	0.010

PS4530 (1000µH – 10000µH)

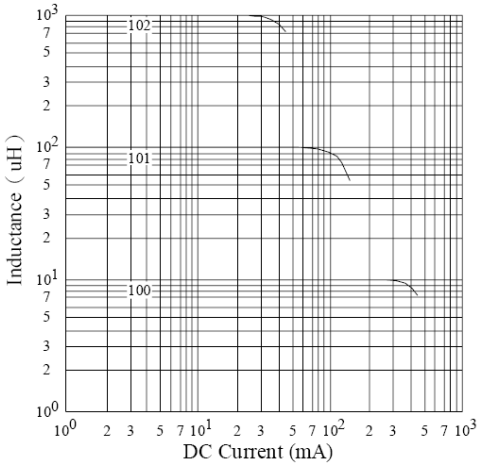
DWG No.	Inductance (µH)	Q min.	Test Freq. L (KHz)	Insulation (MΩ) Core - Winding	SRF (MHz) typ.	RDC (Ω) max.	IDC (mA) max.
PS4530 – 102M	1000±20%	50	100	> 10	2.0	9	100
PS4530 – 152M	1500±20%	50	100	> 10	1.0	11	80
PS4530 – 222M	2200±20%	50	100	> 10	1.0	19	50
PS4530 – 332M	3300±20%	50	100	> 10	1.0	24	40
PS4530 – 472M	4700±20%	50	100	> 10	1.0	30	30
PS4530 – 682M	6800±20%	50	100	> 10	0.9	56	20
PS4530 – 103M	10000±20%	50	100	> 10	0.8	74	10

[Inductance tested at 0.1V] [Irms base on temp. rise 30°C] [Isat base on ΔL/L0A = 10 %] [Electrical Specifications at 25°C]

6. Curve

Inductance VS. DC Current Curve

PS1608



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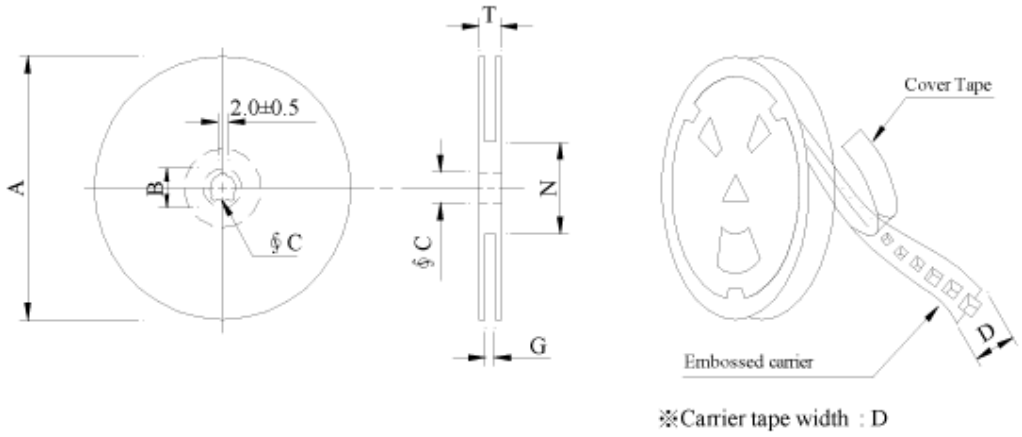
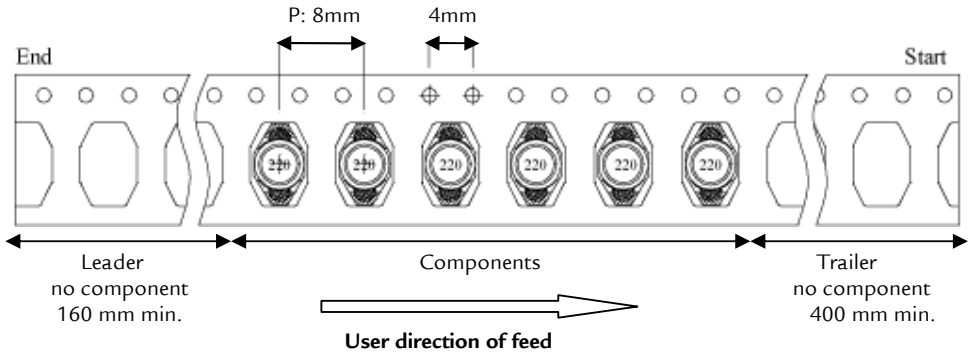
7. Packaging Information





PS1608

Style	Dimensions [mm]						
	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

PS4530

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 – 12	178	21±0.8	13	12	14^{+0}	50^{-0}	16.5

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PS1608	600	250	07 – 12	24,000	10.5	42 x 41 x 24
PS1608	2,500	1,050	13 – 12	20,000	8.5	40 x 40 x 24
PS4530	600	250	07 – 12	24,000	8.0	42 x 41 x 24

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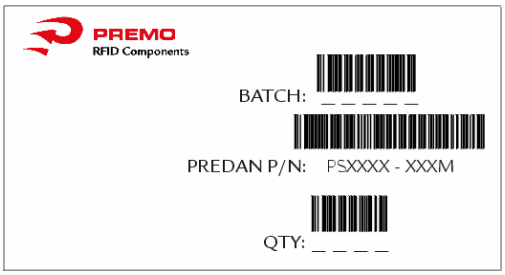
8. Labelling



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 (PS1608) 260±5°C (PS4530) Flux : Rosin Dip time : 4±1 seconds
Thermal shock test (Temp. cycle)	Inductance shall not change more than ±30%	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

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