PN1608
SMD Power Inductors Unshielded

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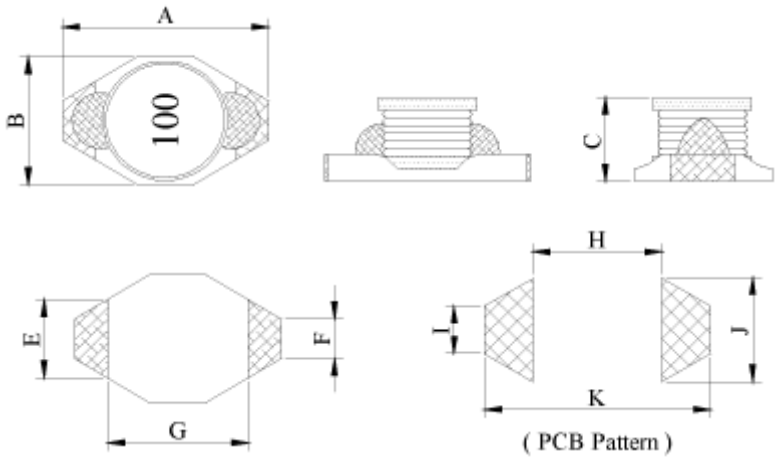
1. Configuration & Dimensions

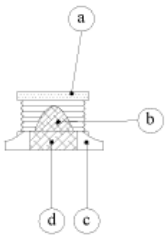


Series	Dimensions [mm]									
	A(max.)	B(max.)	C(max.)	E(typ.)	F(typ.)	G(typ.)	H(ref.)	I(ref.)	J(ref.)	K(ref.)
PN1608	6.60	4.45	2.92	3.05	1.27	4.32	4.10	1.60	3.00	7.00

2. Schematic Diagram

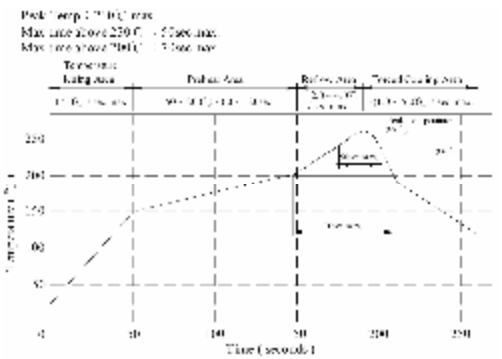
3. Materials

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



4. General Specification

a.- Temp. rise : 15°C typ.
b.- Storage temp. : -40°C ~ +125°C
c.- Operating temp. : -40°C ~ +105°C
d.- DC Current base on temp. rise & ΔL/L0A = 10% typ.
e.- Resistance to solder heat : 260°C. 10 secs



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5. Electrical Characteristics

PN1608 (1µH – 1000µH)

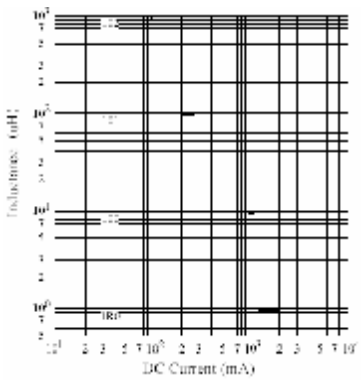
DWG No.	Inductance (mH)	Test Freq. L (KHz)	SRF (MHz) typ.	RDC (W) max.	Irms (A)	Isat (A)
PN1608 – 1R0M	1.0±20%	100	130	0.05	2.90	2.90
PN1608 – 1R5M	1.5±20%	100	115	0.05	2.80	2.60
PN1608 – 2R2M	2.2±20%	100	90	0.07	2.40	2.30
PN1608 – 3R3M	3.3±20%	100	70	0.08	2.00	2.00
PN1608 – 4R7M	4.7±20%	100	50	0.09	1.50	1.50
PN1608 – 6R8M	6.8±20%	100	45	0.13	1.40	1.20
PN1608 – 100M	10.0±20%	100	35	0.16	1.10	1.10
PN1608 – 150M	15.0±20%	100	30	0.23	1.00	0.90
PN1608 – 220M	22.0±20%	100	20	0.37	0.80	0.70
PN1608 – 330M	33.0±20%	100	15	0.51	0.60	0.58
PN1608 – 470M	47.0±20%	100	14	0.64	0.50	0.50
PN1608 – 680M	68.0±20%	100	11	0.86	0.40	0.40
PN1608 – 101M	100.0±20%	100	9	1.27	0.30	0.31
PN1608 – 151M	150.0±20%	100	6	2.00	0.25	0.27
PN1608 – 221M	220.0±20%	100	5.5	3.11	0.20	0.22
PN1608 – 331M	330.0±20%	100	5	3.80	0.16	0.18
PN1608 – 471M	470.0±20%	100	4	5.06	0.15	0.16
PN1608 – 331M	680.0±20%	100	3	9.20	0.12	0.14
PN1608 – 471M	1000.0.0±20%	100	2	13.80	0.07	0.10

[Inductance tested at 0.1V] [Inductance drop = 10% typ. at rated Isat] [ΔT = 15°C rise typ. at Irms]
[Electrical Specifications at 25°C]

6. Curve

Inductance VS. DC Current Curve

PN1608



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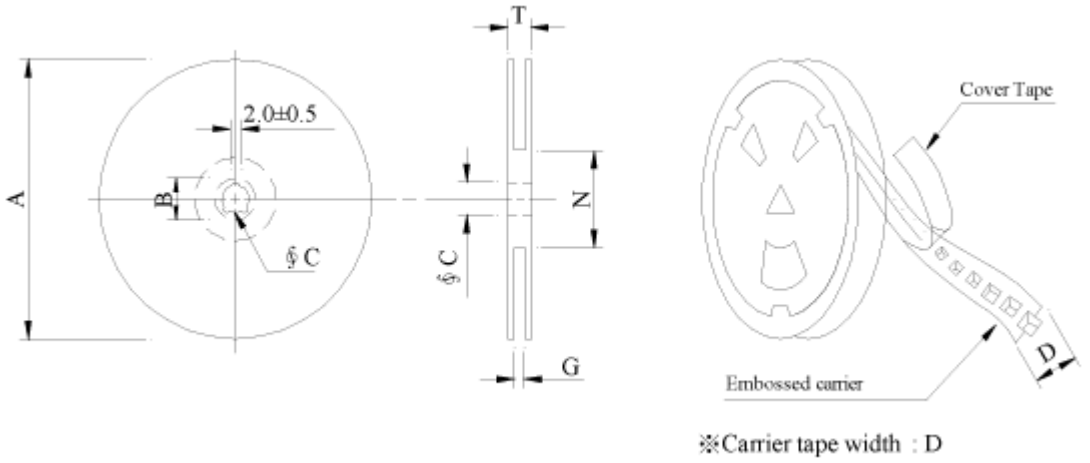
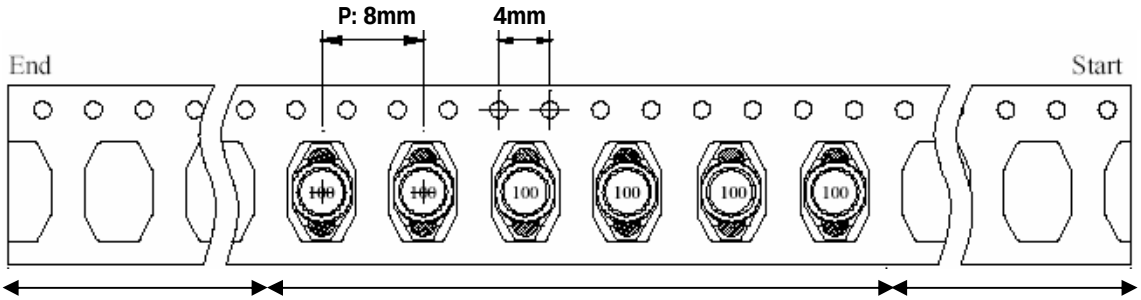
7. Packaging Information



※Carrier tape width : D



Leader
no component
200 mm min.

Components

User direction of feed

Trailer
no component
400 mm min.

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

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PN1608	600	215	07 – 12	24,000	9.4	42 x 41 x 24
PN1608	2,500	900	13 – 12	20,000	8.0	40 x 40 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 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