

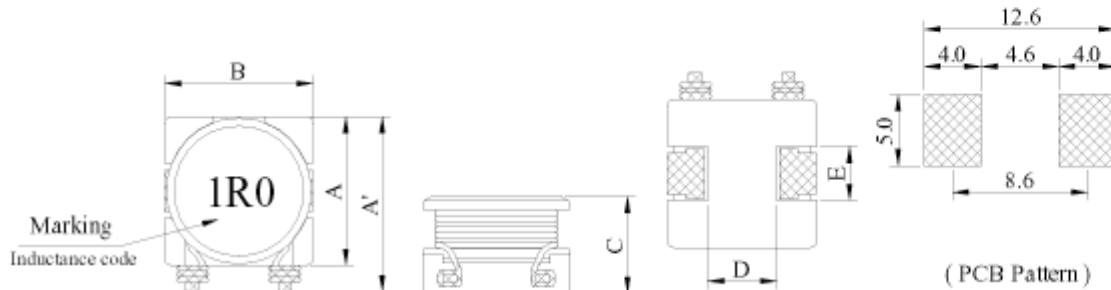
PN1108

SMD Power Inductors Unshielded



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1. Configuration & Dimensions



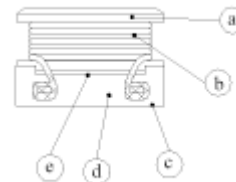
Series	Dimensions [mm]					
	A	A'(max.)	B	C	D(typ.)	E(typ.)
PN1108	11.2±0.30	14.5	11.2±0.30	7.70±0.30	5.60	4.60

2. Schematic Diagram



3. Materials

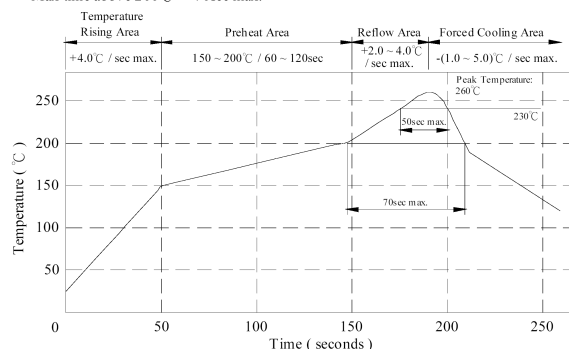
- a.- Core : Ferrite DR Core
- b.- Wire : Enamelled copper wire (class F)
- c.- Terminal : Cu / Ni / Sn
- d.- Base : LCP Base
- e.- Adhesive : Epoxy resin
- f.- Remark : Lead content 200ppm max. include ferrite



4. General Specification

- a.- Storage temp. : -55°C ~ +125°C
- b.- Operating temp. : -55°C ~ +125°C
(Temp. rise included)
- c.- Resistance to solder heat : 260°C. 10 secs

Peak Temp : 260°C max.
Max time above 230°C : 50sec max.
Max time above 200°C : 70sec max.



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5. Electrical Characteristics

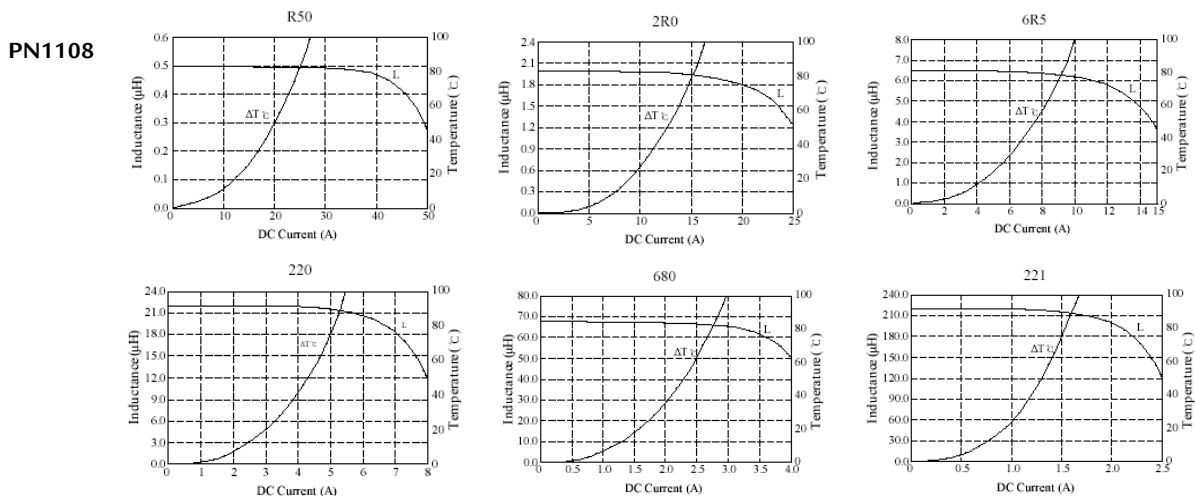
PN1108 (0.50 μ H – 220 μ H)

DWG No.	Inductance (μ H)	Test Freq. L (KHz)	RDC (m Ω)		I _{rms} (A)	I _{sat} (A)
			typ.	max.		
PN1108 – R50N	0.50 $\pm$ 30%	1	3.6	5.0	16.7	34.0
PN1108 – R80N	0.80 $\pm$ 30%	1	4.5	6.5	15.4	26.0
PN1108 – 1R3M	1.30 $\pm$ 20%	1	5.3	8.5	13.4	21.0
PN1108 – 2R0M	2.00 $\pm$ 20%	1	7.6	12.0	10.7	17.5
PN1108 – 3R3M	3.30 $\pm$ 20%	1	10.5	15.0	9.2	13.5
PN1108 – 4R5M	4.50 $\pm$ 20%	1	14.0	20.0	8.0	12.0
PN1108 – 6R5M	6.50 $\pm$ 20%	1	19.0	25.0	6.5	10.0
PN1108 – 100M	10.0 $\pm$ 20%	1	29.0	38.0	5.3	8.0
PN1108 – 150M	15.0 $\pm$ 20%	1	40.0	55.0	4.4	6.5
PN1108 – 220M	22.0 $\pm$ 20%	1	58.0	75.0	3.6	5.4
PN1108 – 330M	33.0 $\pm$ 20%	1	90.0	120.0	2.8	4.3
PN1108 – 470M	47.0 $\pm$ 20%	1	120.0	150.0	2.5	3.8
PN1108 – 680M	68.0 $\pm$ 20%	1	190.0	240.0	2.0	3.0
PN1108 – 101M	100.0 $\pm$ 20%	1	265.0	330.0	1.6	2.4
PN1108 – 151M	150.0 $\pm$ 20%	1	340.0	440.0	1.4	2.0
PN1108 – 221M	220.0 $\pm$ 20%	1	560.0	720.0	1.1	1.7

[Inductance tested at 1V] [I_{rms} base on temp. rise 40°C typ.] [I_{sat} base on inductance drop 10% typ. of L value at 20°C]

6. Curve

Performance Graphs



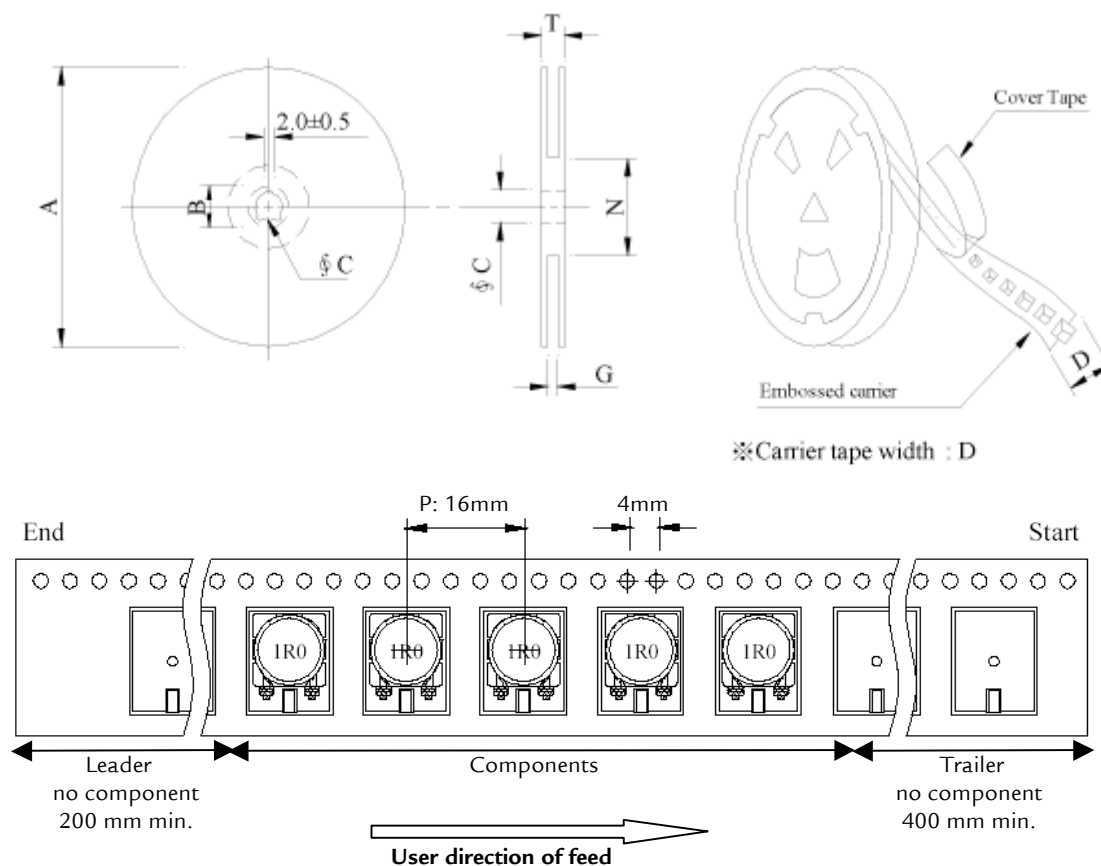
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7. Packaging Information



Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13	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)
PN1108	400	1,600	13 - 24	1,600	8.6	40 x 40 x 24

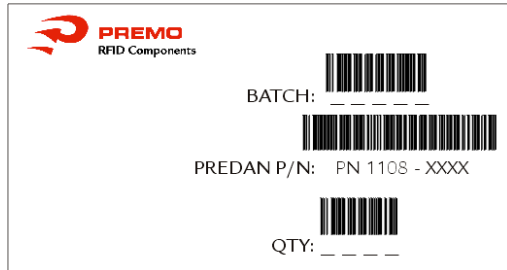
8. Labelling

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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%	$\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{-25 \pm 2^{\circ}\text{C}}{30 \text{ minutes}}$ $\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{85 \pm 2^{\circ}\text{C}}{30 \text{ minutes}}$ 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 : 85±2°C Applied current : Per specifications Time : 500 hours

10. Edition Control

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