PREMO RFID Components

PN0906

SMD Power Inductors Unshielded

RoHS COMPLIANT 2002/95/EC

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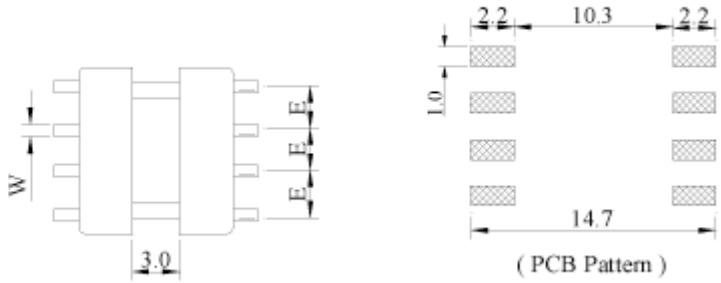
1. Configuration & Dimensions

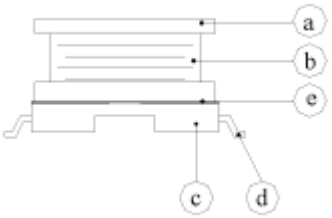


Series	Dimensions [mm]						
	A	B(max.)	C	E	F	F'	W(typ.)
PN0906	9.5±0.5	10.5	6.0±0.3	2.5±0.3	11.0±0.5	12.7±0.8	0.6

2. Schematic Diagram

3. Materials

a.- Core : Ferrite DR Core
b.- Wire : Enamelled copper wire (class F)
c.- Base : LCP E4008
d.- Terminal : Cu / Sn
e.- Adhesive : Epoxy resin
f.- Remark : Lead content 200ppm max. include ferrite



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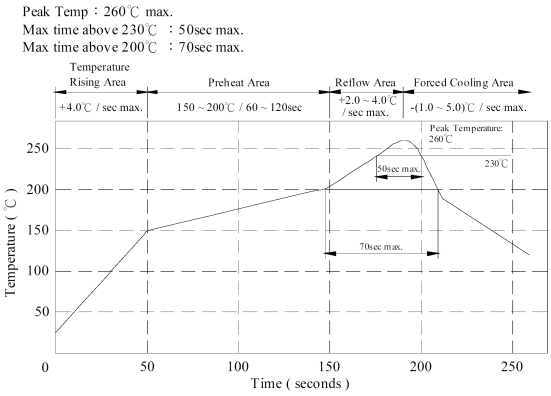
4. General Specification

a.- Temp. rise : 40°C max.
b.- Rated current : Base on temp. rise & ΔL/L0A = 10% max.
c.- Storage temp. : -40°C ~ +125°C
d.- Operating temp. : -40°C ~ +105°C
e.- Resistance to solder heat : 260°C. 10 secs



5. Electrical Characteristics

PN0906 (2.2µH – 10000µH)

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (Ω) max.	IDC (A) max.
			L (KHz)	Q (MHz)			
PN0906 – 2R2M	2.2±20%	30	1	7.96	105.0	0.032	4.00
PN0906 – 2R7M	2.7±20%	30	1	7.96	84.0	0.038	3.50
PN0906 – 3R9M	3.9±20%	28	1	7.96	77.0	0.043	3.30
PN0906 – 4R7M	4.7±20%	28	1	7.96	55.0	0.050	3.00
PN0906 – 5R6M	5.6±20%	28	1	7.96	42.0	0.055	2.80
PN0906 – 6R8M	6.8±20%	27	1	7.96	36.0	0.060	2.60
PN0906 – 8R2M	8.2±20%	27	1	7.96	29.0	0.065	2.40
PN0906 – 100M	10.0±20%	35	1	2.52	25.0	0.090	2.10
PN0906 – 120M	12.0±20%	35	1	2.52	23.0	0.100	2.00
PN0906 – 150M	15.0±20%	35	1	2.52	22.0	0.110	1.90
PN0906 – 180M	18.0±20%	35	1	2.52	19.0	0.120	1.80
PN0906 – 220M	22.0±20%	35	1	2.52	16.0	0.130	1.60
PN0906 – 270K	27.0±10%	35	1	2.52	15.0	0.150	1.40
PN0906 – 330K	33.0±10%	35	1	2.52	13.5	0.180	1.25
PN0906 – 390K	39.0±10%	25	1	2.52	13.0	0.190	1.15
PN0906 – 470K	47.0±10%	25	1	2.52	12.2	0.230	1.10
PN0906 – 560K	56.0±10%	25	1	2.52	12.0	0.260	1.05
PN0906 – 680K	68.0±10%	20	1	2.52	10.0	0.310	1.00
PN0906 – 820K	82.0±10%	20	1	2.52	9.2	0.330	0.95
PN0906 – 101K	100.0±10%	15	1	0.796	9.0	0.390	0.90
PN0906 – 121K	120.0±10%	15	1	0.796	8.0	0.430	0.85

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PN0906 – 151K	150.0±10%	15	1	0.796	7.5	0.560	0.75

PN0906 (2.2µH – 10000µH)

PN0906 – 181K	180.0±10%	15	1	0.796	7.0	0.640	0.70
PN0906 – 221K	220.0±10%	20	1	0.796	6.0	0.850	0.60
PN0906 – 271K	270.0±10%	20	1	0.796	5.5	1.000	0.55
PN0906 – 331K	330.0±10%	15	1	0.796	5.3	1.270	0.50
PN0906 – 391K	390.0±10%	15	1	0.796	5.0	1.400	0.45
PN0906 – 471K	470.0±10%	15	1	0.796	4.8	1.630	0.40
PN0906 – 561K	560.0±10%	15	1	0.796	4.5	2.100	0.32
PN0906 – 681K	680.0±10%	15	1	0.796	4.0	2.400	0.28
PN0906 – 821K	820.0±10%	15	1	0.796	3.5	2.750	0.24
PN0906 – 102K	1000.0±10%	60	1	0.252	2.5	3.500	0.22
PN0906 – 122K	1200.0±10%	60	1	0.252	2.0	4.000	0.20
PN0906 – 152K	1500.0±10%	70	1	0.252	2.0	5.000	0.18
PN0906 – 182K	1800.0±10%	60	1	0.252	1.9	5.800	0.17
PN0906 – 222K	2200.0±10%	94	1	0.252	1.6	8.000	0.14
PN0906 – 272K	2700.0±10%	90	1	0.252	1.3	9.000	0.13
PN0906 – 332K	3300.0±10%	78	1	0.252	1.3	10.000	0.12
PN0906 – 392K	3900.0±10%	96	1	0.252	1.2	13.500	0.10
PN0906 – 472K	4700.0±10%	86	1	0.252	1.0	15.000	0.09
PN0906 – 562K	5600.0±10%	100	1	0.252	1.0	20.000	0.07
PN0906 – 682K	6800.0±10%	90	1	0.252	0.9	23.000	0.06
PN0906 – 822K	8200.0±10%	100	1	0.252	0.8	28.000	0.05
PN0906 – 103K	10000.0±10%	100	1	0.0796	0.7	33.000	0.04

[IDC base on temp. rise 40°C max. & ΔL/L0A = 10% max.]

6. Curve

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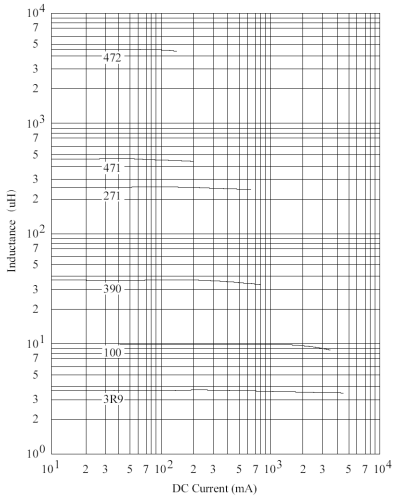
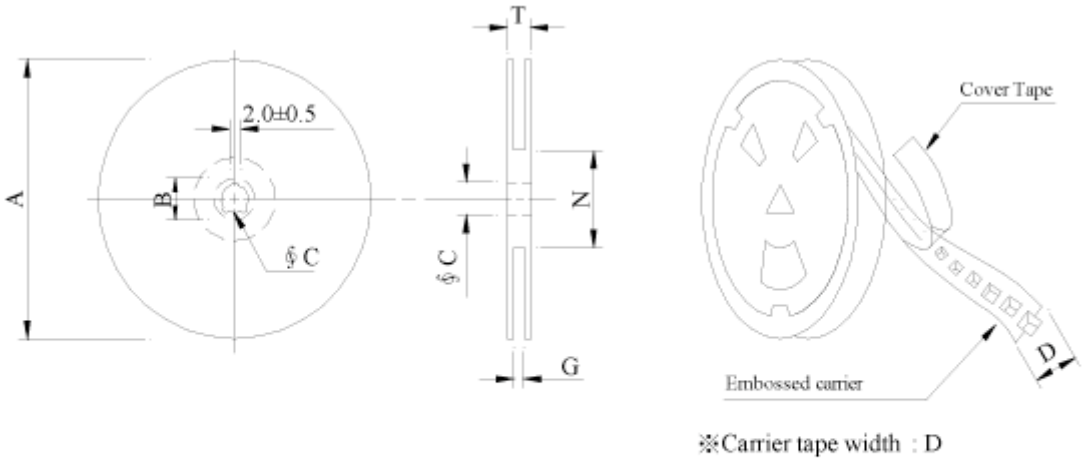
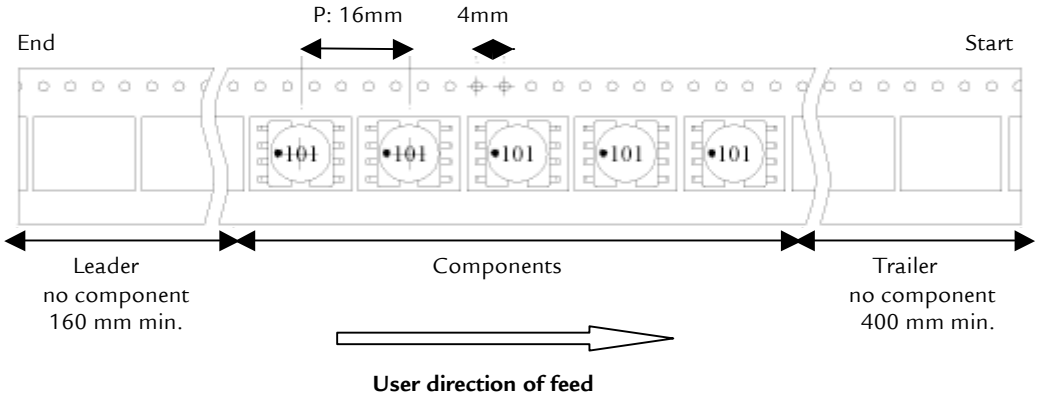
PN0906

Inductance VS. DC Current Curve



7. Packaging Information





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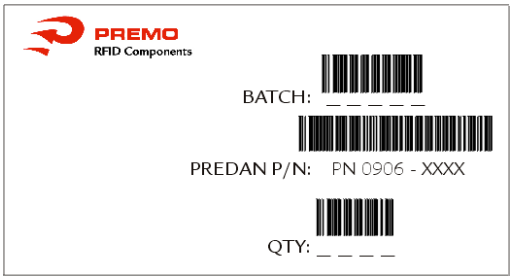
Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 – 24	330	21±0.8	13±0.5	24	26^{+0}	50^{-0}	30.4

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PN0906	600	1,400	13 – 24	2,400	7.6	40 x 40 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