PREMO RFID Components

PS0703 & PS0704

SMD Power Inductors Shielded

RoHS COMPLIANT 2002/95/EC

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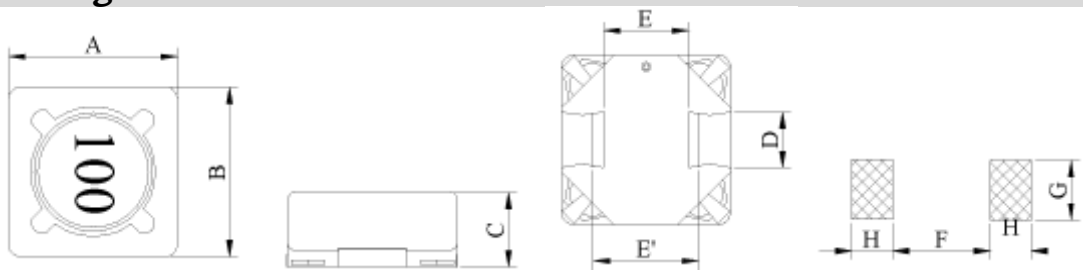
1. Configuration & Dimensions

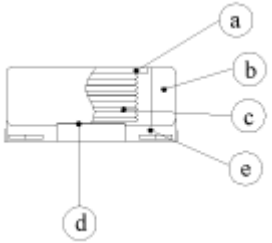


Series	Dimensions [mm]								
	A	B	C	D(typ.)	E(typ.)	E'(typ.)	F(typ.)	G(ref.)	H(ref.)
PS0703	7.30±0.2	7.30±0.2	3.50±0.2	2.00	4.60	4.90	4.80	2.40	1.50
PS0704	7.30±0.2	7.30±0.2	4.50±0.2	2.00	4.60	4.90	4.80	2.40	1.50

2. Schematic Diagram

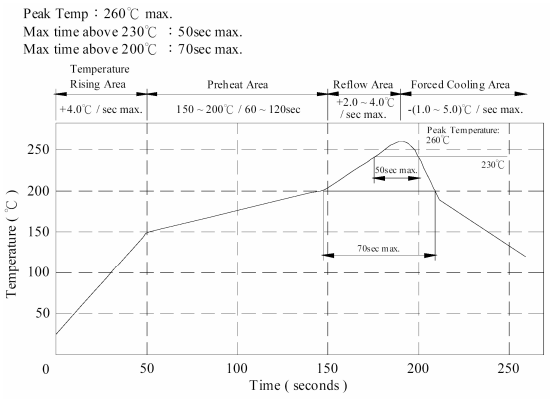
3. Materials

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



4. General Specification

a.- Temp. rise : 40°C max.
b.- Storage temp. : -40°C ~ +125°C
c.- Operating temp. : -25°C ~ +105°C
d.- Resistance to solder heat : 260°C. 10 secs



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5. Electrical Characteristics

PS0703 (10µH – 1000µH)

DWG No.	Inductance (µH)	Test Freq. L (KHz)	RDC (Ω) max.	Irms (A)	Isat (A)
PS0703 – 100M	10.0±20%	1	0.072	2.10	1.85
PS0703 – 120M	12.0±20%	1	0.085	1.90	1.60
PS0703 – 150M	15.0±20%	1	0.105	1.60	1.52
PS0703 – 180M	18.0±20%	1	0.125	1.40	1.40
PS0703 – 220M	22.0±20%	1	0.160	1.20	1.28
PS0703 – 270M	27.0±20%	1	0.185	1.10	1.15
PS0703 – 330M	33.0±20%	1	0.220	1.00	1.04
PS0703 – 390M	39.0±20%	1	0.250	0.95	0.96
PS0703 – 470M	47.0±20%	1	0.320	0.85	0.88
PS0703 – 560M	56.0±20%	1	0.350	0.78	0.80
PS0703 – 680M	68.0±20%	1	0.400	0.72	0.74
PS0703 – 820M	82.0±20%	1	0.480	0.63	0.65
PS0703 – 101M	100.0±20%	1	0.630	0.54	0.60
PS0703 – 121M	120.0±20%	1	0.720	0.53	0.55
PS0703 – 151M	150.0±20%	1	0.930	0.47	0.48
PS0703 – 181M	180.0±20%	1	1.150	0.43	0.45
PS0703 – 221M	220.0±20%	1	1.320	0.40	0.42
PS0703 – 271M	270.0±20%	1	1.700	0.30	0.37
PS0703 – 331M	330.0±20%	1	2.000	0.33	0.33
PS0703 – 391M	390.0±20%	1	2.300	0.30	0.30
PS0703 – 471M	470.0±20%	1	2.800	0.26	0.27
PS0703 – 561M	560.0±20%	1	3.500	0.23	0.25
PS0703 – 681M	680.0±20%	1	4.000	0.21	0.22
PS0703 – 821M	820.0±20%	1	5.200	0.19	0.21
PS0703 – 102M	1000.0±20%	1	5.800	0.17	0.18

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PS0704 (10µH – 1000µH)

DWG No.	Inductance (µH)	Test Freq. L (KHz)	RDC (Ω) max.	Irms (A)	Isat (A)
PS0704 – 100M	10.0±20%	1	0.052	2.10	2.50
PS0704 – 120M	12.0±20%	1	0.062	2.00	2.30
PS0704 – 150M	15.0±20%	1	0.075	1.90	2.10
PS0704 – 180M	18.0±20%	1	0.090	1.80	1.95
PS0704 – 220M	22.0±20%	1	0.096	1.65	1.75
PS0704 – 270M	27.0±20%	1	0.130	1.45	1.62
PS0704 – 330M	33.0±20%	1	0.150	1.35	1.45
PS0704 – 390M	39.0±20%	1	0.190	1.17	1.30
PS0704 – 470M	47.0±20%	1	0.210	1.05	1.20
PS0704 – 560M	56.0±20%	1	0.240	0.95	1.10
PS0704 – 680M	68.0±20%	1	0.300	0.86	0.96
PS0704 – 820M	82.0±20%	1	0.400	0.78	0.90
PS0704 – 101M	100.0±20%	1	0.450	0.70	0.78
PS0704 – 121M	120.0±20%	1	0.550	0.60	0.70
PS0704 – 151M	150.0±20%	1	0.760	0.48	0.58
PS0704 – 181M	180.0±20%	1	0.820	0.46	0.54
PS0704 – 221M	220.0±20%	1	0.950	0.42	0.50
PS0704 – 271M	270.0±20%	1	1.200	0.38	0.46
PS0704 – 331M	330.0±20%	1	1.500	0.34	0.40
PS0704 – 391M	390.0±20%	1	1.850	0.32	0.36
PS0704 – 471M	470.0±20%	1	2.200	0.29	0.34
PS0704 – 561M	560.0±20%	1	2.600	0.26	0.30
PS0704 – 681M	680.0±20%	1	2.800	0.24	0.28
PS0704 – 821M	820.0±20%	1	3.500	0.22	0.26
PS0704 – 102M	1000.0±20%	1	4.100	0.20	0.24

[Inductance tested at 1V] [Irms base on temp. rise 40°C max.] [Isat base on ΔL/L0A = 25% max.]

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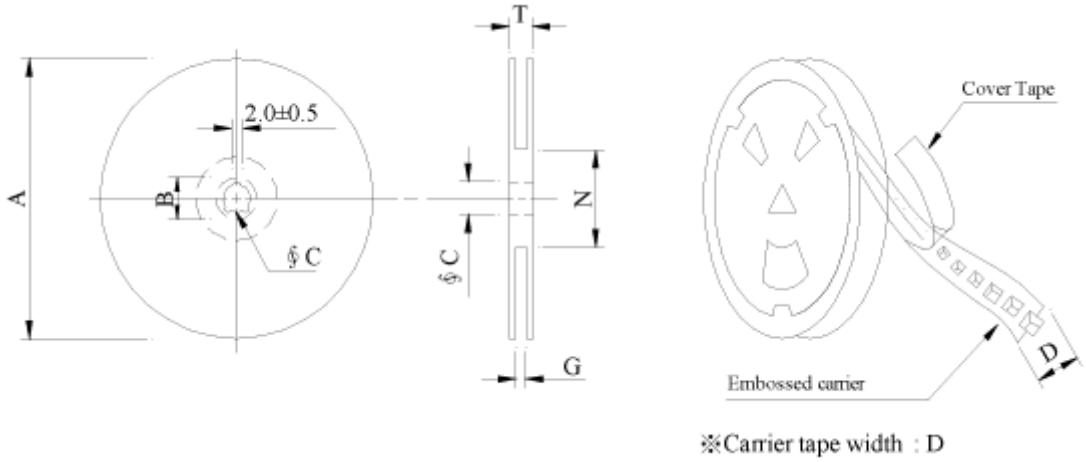
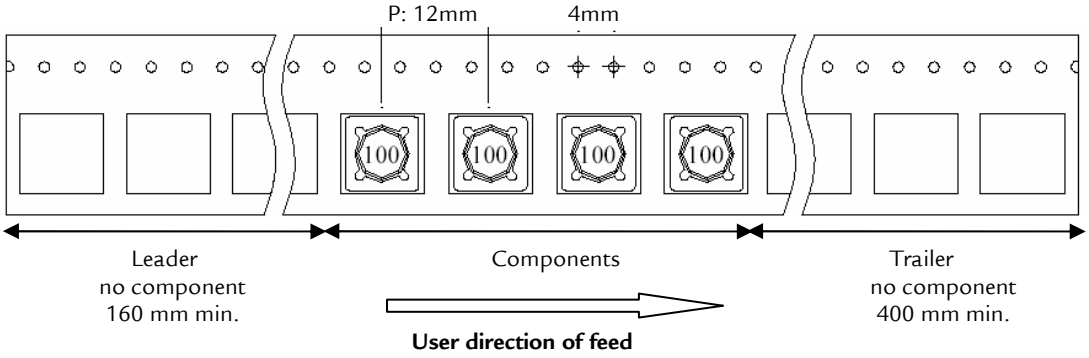
6. Packaging Information

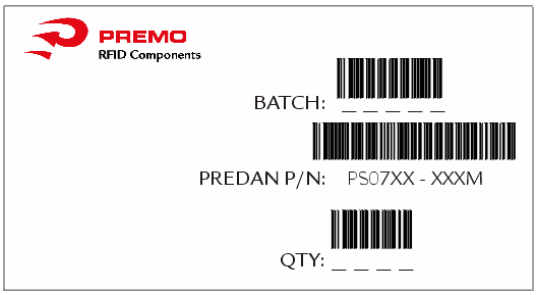




Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 – 16	330	21±0.8	13±0.5	16	18^{+0}	50^{-0}	22.4

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PS0703	1,500	1,250	13 – 16	9,000	17.0	40 x 40 x 24
PS0704	1,000	825	13 – 16	6,000	11.6	40 x 40 x 24

7. Labelling



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8. 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. : 260±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

9. Edition Control

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