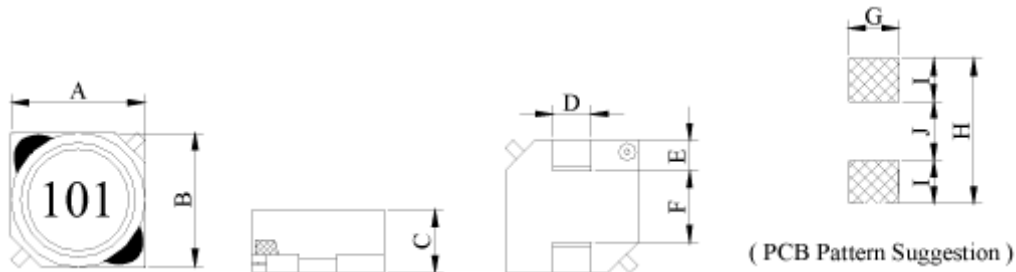


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## 1. Configuration & Dimensions



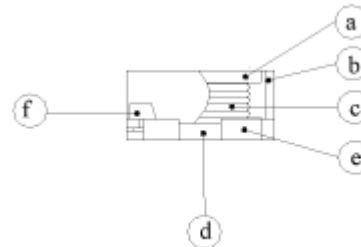
Series	Dimensions [mm]									
	A	B	C	D	E(typ.)	F	G(ref.)	H(ref.)	I(ref.)	J(ref.)
PS6028	6.00±0.3	6.00±0.3	2.8±0.3	2.0±0.3	1.9	2.2 ref.	2.4	6.7	2.3	2.1
PS7032	7.00±0.3	7.00±0.3	3.20±0.2	2.00 typ.	1.50	4.00 typ.	2.40	7.80	1.80	4.20
PS7045	7.00±0.3	7.00±0.3	4.50±0.3	2.00 typ.	1.50	4.00 typ.	2.40	7.80	1.80	4.20

## 2. Schematic Diagram



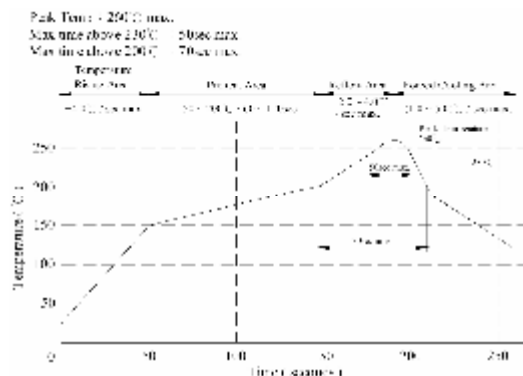
## 3. Materials

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



## 4. General Specification

- a.- Temp. rise : 30°C max. (PS7032, PS7045)
- b.- Storage temp. : -40°C ~ +125°C
- c.- Operating temp.  $\left\{ \begin{array}{l} -40^{\circ}\text{C} \sim +125^{\circ}\text{C} \text{ (PS6028)} \\ \text{(Temp. rise included)} \\ -25^{\circ}\text{C} \sim +105^{\circ}\text{C} \text{ (PS7032, PS7045)} \end{array} \right.$
- d.- Resistance to solder heat : 260°C. 10 secs



## 5. Electrical Characteristics

### PS6028 (1 $\mu$ H - 1000 $\mu$ H)

DWG No.	Inductance (mH)	Test Freq. L (KHz)	RDC ( $\Omega$ ) max.	I <sub>rms</sub> (A) max.	I <sub>sat</sub> (A) max.
PS6028 - 1R0M	1.0 $\pm$ 20%	1	0.022	3.80	3.00
PS6028 - 1R5M	1.5 $\pm$ 20%	1	0.025	3.20	2.50
PS6028 - 2R2M	2.2 $\pm$ 20%	1	0.032	3.00	2.20
PS6028 - 3R3M	3.3 $\pm$ 20%	1	0.044	1.92	1.55
PS6028 - 4R7M	4.7 $\pm$ 20%	1	0.050	1.80	1.35
PS6028 - 6R8M	6.8 $\pm$ 20%	1	0.070	1.45	1.20
PS6028 - 100M	10.0 $\pm$ 20%	1	0.105	1.20	1.00
PS6028 - 150M	15.0 $\pm$ 20%	1	0.140	1.00	0.80
PS6028 - 220M	22.0 $\pm$ 20%	1	0.220	0.80	0.65
PS6028 - 330M	33.0 $\pm$ 20%	1	0.280	0.65	0.55
PS6028 - 470M	47.0 $\pm$ 20%	1	0.380	0.55	0.48
PS6028 - 680M	68.0 $\pm$ 20%	1	0.600	0.45	0.38
PS6028 - 101M	100.0 $\pm$ 20%	1	0.840	0.38	0.31
PS6028 - 151M	150.0 $\pm$ 20%	1	1.200	0.30	0.26
PS6028 - 221M	220.0 $\pm$ 20%	1	1.700	0.25	0.22
PS6028 - 331M	330.0 $\pm$ 20%	1	2.450	0.20	0.17
PS6028 - 471M	470.0 $\pm$ 20%	1	3.600	0.17	0.14
PS6028 - 681M	680.0 $\pm$ 20%	1	5.400	0.13	0.11
PS6028 - 102M	1000.0 $\pm$ 20%	1	8.200	0.11	0.09

### PS7032 (3.3 $\mu$ H - 1000 $\mu$ H)

DWG No.	Inductance (mH)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC (W) max.	I <sub>rms</sub> (A) max.	I <sub>sat</sub> (A) typ.
			L (KHz)	Q (MHz)				
PS7032 - 3R3M	3.3 $\pm$ 20%	16	1	7.96	55.0	0.027	2.40	2.20
PS7032 - 4R7M	4.7 $\pm$ 20%	16	1	7.96	43.0	0.042	2.00	2.00
PS7032 - 6R8M	6.8 $\pm$ 20%	17	1	7.96	37.0	0.054	1.60	1.80
PS7032 - 100M	10.0 $\pm$ 20%	25	1	2.52	35.0	0.068	1.40	1.60
PS7032 - 150M	15.0 $\pm$ 20%	22	1	2.52	32.0	0.095	1.10	1.20
PS7032 - 220M	22.0 $\pm$ 20%	20	1	2.52	29.0	0.135	0.96	1.05
PS7032 - 330M	33.0 $\pm$ 20%	23	1	2.52	20.0	0.200	0.76	0.86
PS7032 - 470M	47.0 $\pm$ 20%	26	1	2.52	18.0	0.270	0.67	0.70
PS7032 - 680M	68.0 $\pm$ 20%	22	1	2.52	16.0	0.380	0.60	0.67
PS7032 - 101M	100.0 $\pm$ 20%	28	1	0.796	12.0	0.540	0.45	0.50
PS7032 - 151M	150.0 $\pm$ 20%	35	1	0.796	10.0	0.800	0.37	0.38

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### PS7032 (3.3µH - 1000µH)

PS7032 - 221M	220.0±20%	47	1	0.796	7.5	1.300	0.30	0.32
PS7032 - 331M	330.0±20%	46	1	0.796	6.1	1.900	0.22	0.24
PS7032 - 471M	470.0±20%	34	1	0.796	5.1	2.400	0.20	0.20
PS7032 - 681M	680.0±20%	58	1	0.796	3.8	3.750	0.16	0.15
PS7032 - 102M	1000.0±20%	120	1	0.252	3.1	5.400	0.15	0.14

### PS7045 (10µH - 1000µH)

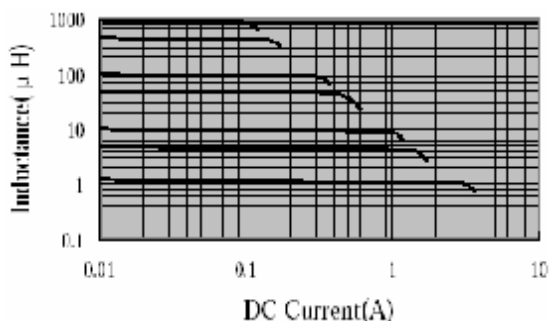
DWG No.	Inductance (mH)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC (W) max.	I <sub>rms</sub> (A) max.	I <sub>sat</sub> (A) typ.
			L (KHz)	Q (MHz)				
PS7045 - 100M	10.0±20%	30	1	2.52	25	0.042	2.00	1.70
PS7045 - 150M	15.0±20%	31	1	2.52	24	0.062	1.60	1.35
PS7045 - 220M	22.0±20%	26	1	2.52	18	0.082	1.35	1.10
PS7045 - 330M	33.0±20%	25	1	2.52	12	0.115	1.15	0.90
PS7045 - 470M	47.0±20%	29	1	2.52	11	0.150	0.95	0.78
PS7045 - 680M	68.0±20%	22	1	2.52	10	0.210	0.77	0.60
PS7045 - 101M	100.0±20%	40	1	0.796	8	0.300	0.65	0.50
PS7045 - 151M	150.0±20%	51	1	0.796	7	0.480	0.53	0.41
PS7045 - 221M	220.0±20%	44	1	0.796	5	0.700	0.45	0.36
PS7045 - 331M	330.0±20%	65	1	0.796	4	0.730	0.40	0.25
PS7045 - 471M	470.0±20%	80	1	0.796	3	1.100	0.32	0.22
PS7045 - 681M	680.0±20%	65	1	0.796	3	1.600	0.27	0.20
PS7045 - 102M	1000.0±20%	90	1	0.252	3	2.400	0.25	0.15

[Inductance tested at 0.5V] [I<sub>rms</sub> base on temp. rise: 40°C(PS6028), 30°C(PS7032, PS7045)]  
[I<sub>sat</sub> base on ΔL/LOA = 10%(PS7032, PS7045<sub>100M ~ 221M</sub>), 25%(PS6028, PS7045<sub>331M ~ 102M</sub>)]

## 6. Curve

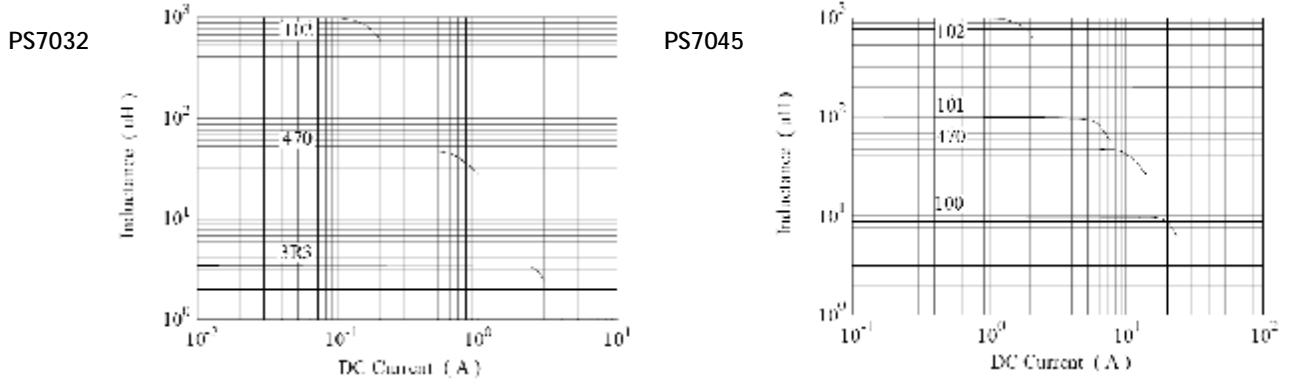
### Inductance VS. DC Current Curve

PS6028

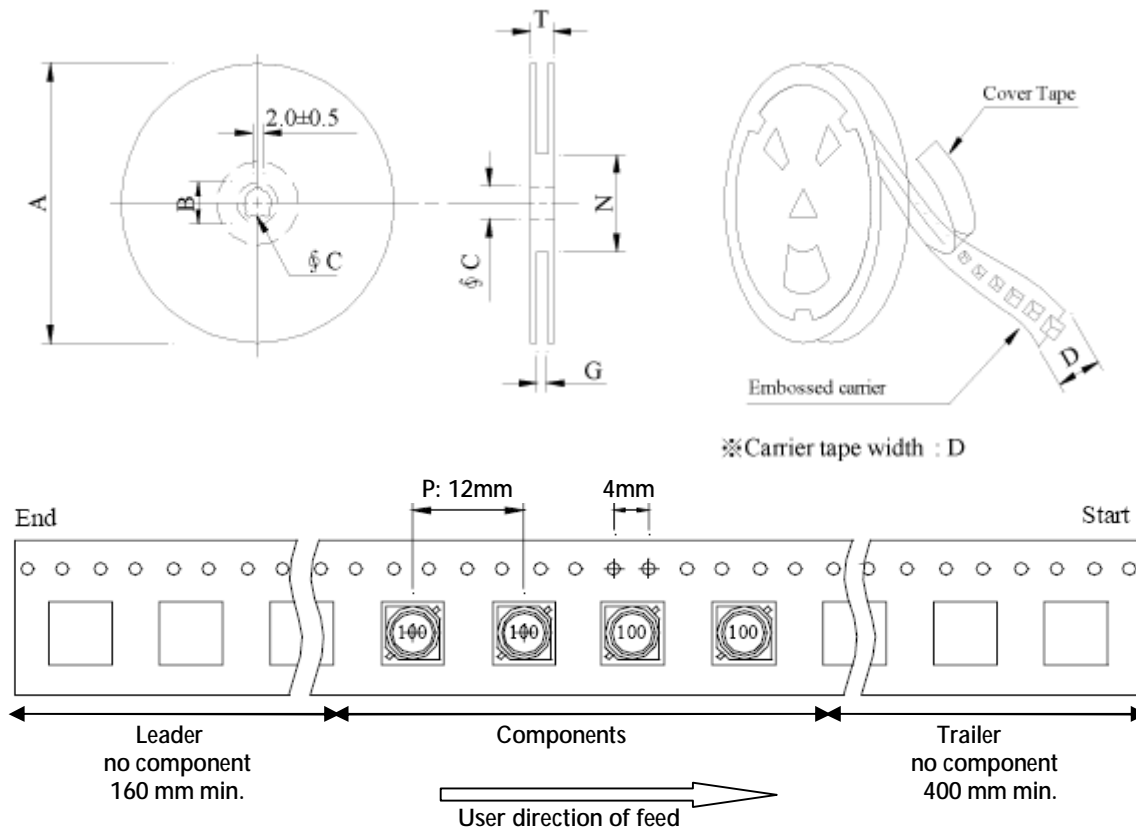


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**Inductance VS. DC Current Curve**



**7. Packaging Information**



# PS6028 , PS7032 & PS7045 SMD Power Inductors Shielded



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## PS6028

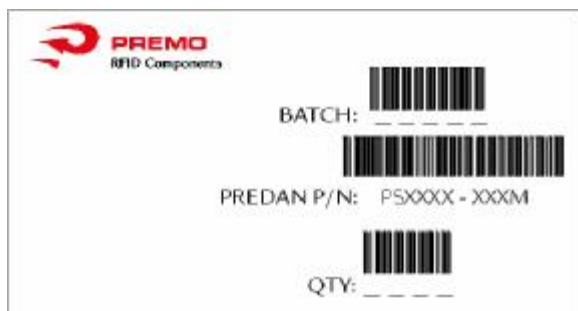
Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 - 16	178	21±0.8	13	16	18 <sup>+0</sup>	50 <sup>0</sup>	20.5
13 - 16	330	21±0.8	13±0.5	16	18 <sup>+0</sup>	50 <sup>0</sup>	22.4

## PS7032 & PS7045

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 - 16	330	21±0.8	13±0.5	16	18 <sup>+0</sup>	50 <sup>0</sup>	22.4

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PS6028	400	650	07 - 16	16,000	7.2	42 x 41 x 24
PS6028	1,500	1,050	13 - 16	9,000	4.7	40 x 40 x 24
PS7032	1,500	200	13 - 16	9,000	1.44	40 x 40 x 24
PS7045	1,000	255	13 - 16	6,000	1.84	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 (PS6028) 260±5°C (PS7032, PS7045) Flux : Rosin Dip time : 4±1 seconds						
Thermal shock test (Temp. cycle)	Inductance shall not change more than ±30%	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; border-bottom: 1px solid black;">Room temp. 15 minutes</td> <td style="text-align: center; vertical-align: middle;">→</td> <td style="text-align: center; border-bottom: 1px solid black;">-25±2°C 30 minutes</td> </tr> <tr> <td style="text-align: center; border-bottom: 1px solid black;">Room temp. 15 minutes</td> <td style="text-align: center; vertical-align: middle;">→</td> <td style="text-align: center; border-bottom: 1px solid black;">85±2°C 30 minutes</td> </tr> </table>	Room temp. 15 minutes	→	-25±2°C 30 minutes	Room temp. 15 minutes	→	85±2°C 30 minutes
Room temp. 15 minutes		→	-25±2°C 30 minutes					
Room temp. 15 minutes		→	85±2°C 30 minutes					
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 (PS6028) 105±2°C (PS7032, PS7045) Applied current : Per specifications Time : 500 hours							

## 10. Edition Control

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

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## PS6028 , PS7032 & PS7045 SMD Power Inductors Shielded



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