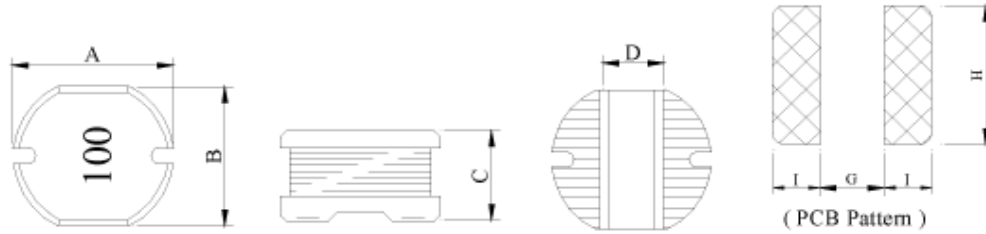


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## 1. Configuration & Dimensions



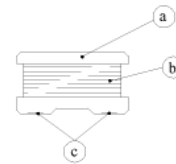
Series	Dimensions [mm]						
	A	B	C	D	G(ref.)	H(ref.)	I(ref.)
PN0315	3.0±0.2	2.8±0.2	1.5±0.2	0.9(typ.)	0.8	3.0	1.4
PN0302	3.0±0.3	2.8±0.3	2.5±0.3	0.9(typ.)	0.8	3.0	1.4
PN0403	4.5±0.3	4.0±0.3	3.2±0.3	1.5(typ.)	1.5	4.5	1.8
PN0502	5.0±0.3	4.5±0.3	2.0±0.15	2.0(ref.)	1.9	5.0	1.8
PN0602	5.6±0.2	5.6±0.2	2.5±0.3	2.3(ref.)	1.7	5.8	2.15
PN0603	5.6±0.2	5.6±0.2	3.7±0.3	2.3(ref.)	1.7	5.8	2.15
PN54	5.6±0.2	5.6±0.2	4.5±0.3	2.3(ref.)	1.7	5.8	2.15
PN75	7.5±0.3	7.5±0.3	5.0±0.3	2.6(ref.)	2.4	8.0	2.7
PN105	9.5±0.3	9.5±0.3	5.5±0.3	2.9(ref.)	2.8	10.0	3.6
PN1011	9.5±0.3	9.5±0.3	11.5±0.5	2.9(ref.)	2.8	10.0	3.6
PN1307	13.0±0.7	13.0±0.7	7.0±0.3	5.0(ref.)	4.5	14.0	4.75

## 2. Schematic Diagram



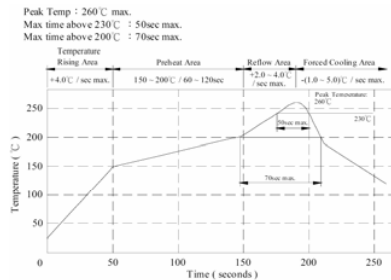
## 3. Materials

- a.- Core : Ferrite DR core
- b.- Wire : Enamelled copper wire (class F)
- c.- Terminal : Ag / Ni / Sn
- d.- Remark : Lead content 200ppm max. include ferrite



## 4. General Specification

- a.- Temp. rise  $\begin{cases} 30^{\circ}\text{C max. (PN0315)} \\ 40^{\circ}\text{C max. (PN0302, PN0403, PN0602, PN0603,} \\ \quad \text{PN54, PN75, PN105, PN1011, PN1307)} \\ 20^{\circ}\text{C max. (PN0502)} \end{cases}$
- b.- Rated current : Base on temp. rise &  $\Delta L/L0A = 10\%$
- c.- Storage temp. :  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- d.- Operating temp. :  $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- e.- Resistance to solder heat :  $260^{\circ}\text{C}$ . 10 secs



## 5. Electrical Characteristics

### PN0315 (2.2 $\mu$ H – 100 $\mu$ H)

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC ( $\Omega$ )		I <sub>rms</sub> (mA) max.	I <sub>sat</sub> (mA) typ.
			L (KHz)	Q (MHz)		typ.	max.		
PN0315 – 2R2M	2.2 $\pm$ 20%	12	100	7.96	100	0.095	0.125	1200	1000
PN0315 – 4R7M	4.7 $\pm$ 20%	10	100	7.96	80	0.165	0.215	1000	700
PN0315 – 100M	10.0 $\pm$ 20%	12	100	2.52	55	0.360	0.450	650	500
PN0315 – 150M	15.0 $\pm$ 20%	15	100	2.52	40	0.540	0.675	500	400
PN0315 – 220M	22.0 $\pm$ 20%	20	100	2.52	35	0.850	1.060	420	330
PN0315 – 330K	33.0 $\pm$ 10%	20	100	2.52	28	1.150	1.430	350	270
PN0315 – 470K	47.0 $\pm$ 10%	15	100	2.52	23	1.550	1.950	300	220
PN0315 – 680K	68.0 $\pm$ 10%	22	100	2.52	18	2.350	2.950	230	180
PN0315 – 101K	100.0 $\pm$ 10%	40	100	0.796	15	3.500	4.400	200	160

### PN0302 (1 $\mu$ H – 1200 $\mu$ H)

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq.		SRF (MHz) typ.	RDC ( $\Omega$ ) max.	I <sub>rms</sub> (A) $\Delta$ T=40°C max.	I <sub>sat</sub> (A) $\Delta$ L/L0A=10% typ.
			L (KHz)	Q (MHz)				
PN0302 – 1R0M	1.0 $\pm$ 20%	20	100	7.96	125.0	0.06	2.100	2.700
PN0302 – 1R2M	1.2 $\pm$ 20%	22	100	7.96	100.0	0.07	2.000	2.500
PN0302 – 1R5M	1.5 $\pm$ 20%	23	100	7.96	95.0	0.07	1.900	2.300
PN0302 – 1R8M	1.8 $\pm$ 20%	23	100	7.96	85.0	0.08	1.800	2.000
PN0302 – 2R2M	2.2 $\pm$ 20%	22	100	7.96	75.0	0.09	1.650	1.850
PN0302 – 2R7M	2.7 $\pm$ 20%	22	100	7.96	72.0	0.10	1.500	1.700
PN0302 – 3R3M	3.3 $\pm$ 20%	23	100	7.96	68.0	0.11	1.400	1.600
PN0302 – 3R9M	3.9 $\pm$ 20%	24	100	7.96	50.0	0.12	1.300	1.500
PN0302 – 4R7M	4.7 $\pm$ 20%	18	100	7.96	45.0	0.15	1.200	1.350
PN0302 – 5R6M	5.6 $\pm$ 20%	18	100	7.96	42.0	0.16	1.100	1.300
PN0302 – 6R8M	6.8 $\pm$ 20%	18	100	7.96	40.0	0.18	1.000	1.200
PN0302 – 8R2M	8.2 $\pm$ 20%	16	100	7.96	35.0	0.20	0.900	1.050
PN0302 – 100M	10.0 $\pm$ 20%	18	100	2.52	34.0	0.25	0.800	0.900
PN0302 – 120M	12.0 $\pm$ 20%	15	100	2.52	33.0	0.28	0.750	0.850
PN0302 – 150M	15.0 $\pm$ 20%	20	100	2.52	32.0	0.40	0.650	0.800
PN0302 – 180M	18.0 $\pm$ 20%	18	100	2.52	28.0	0.46	0.580	0.750
PN0302 – 220M	22.0 $\pm$ 20%	23	100	2.52	22.0	0.66	0.520	0.650
PN0302 – 270M	27.0 $\pm$ 20%	23	100	2.52	20.0	0.75	0.480	0.550

### PN0302 (1 $\mu$ H – 1200 $\mu$ H)

PN0302 – 330K	33.0 $\pm$ 10%	20	100	2.52	18.0	0.85	0.420	0.500
PN0302 – 390K	39.0 $\pm$ 10%	24	100	2.52	18.0	1.12	0.380	0.450
PN0302 – 470K	47.0 $\pm$ 10%	23	100	2.52	17.0	1.27	0.360	0.400
PN0302 – 560K	56.0 $\pm$ 10%	18	100	2.52	16.0	1.45	0.340	0.350
PN0302 – 680K	68.0 $\pm$ 10%	24	100	2.52	14.0	1.85	0.300	0.320
PN0302 – 820K	82.0 $\pm$ 10%	24	100	2.52	12.0	2.10	0.280	0.300
PN0302 – 101K	100.0 $\pm$ 10%	40	100	0.796	10.0	2.85	0.260	0.280
PN0302 – 121K	120.0 $\pm$ 10%	40	100	0.796	10.0	3.20	0.220	0.250
PN0302 – 151K	150.0 $\pm$ 10%	38	100	0.796	9.0	4.60	0.200	0.230
PN0302 – 181K	180.0 $\pm$ 10%	45	100	0.796	8.5	5.00	0.185	0.210
PN0302 – 221K	220.0 $\pm$ 10%	40	100	0.796	8.0	5.70	0.170	0.190
PN0302 – 271K	270.0 $\pm$ 10%	45	100	0.796	7.0	8.60	0.150	0.170
PN0302 – 331K	330.0 $\pm$ 10%	40	100	0.796	6.0	10.00	0.130	0.150
PN0302 – 391K	390.0 $\pm$ 10%	40	100	0.796	5.5	10.80	0.120	0.140
PN0302 – 471K	470.0 $\pm$ 10%	42	100	0.796	5.0	14.30	0.105	0.130
PN0302 – 561K	560.0 $\pm$ 10%	43	100	0.796	4.8	16.00	0.095	0.120
PN0302 – 681K	680.0 $\pm$ 10%	43	100	0.796	4.3	18.00	0.085	0.110
PN0302 – 821K	820.0 $\pm$ 10%	45	100	0.796	4.0	22.50	0.080	0.100
PN0302 – 102K	1000.0 $\pm$ 10%	40	100	0.252	3.2	26.00	0.070	0.090
PN0302 – 122K	1200.0 $\pm$ 10%	40	100	0.252	3.0	30.00	0.060	0.080

### PN0403 (1 $\mu$ H – 1000 $\mu$ H)

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq.		RDC ( $\Omega$ ) max.	IDC (A) max.
			L (KHz)	Q (MHz)		
PN0403 – 1R0M	1.0 $\pm$ 20%	28	1	7.96	0.033	3.800
PN0403 – 1R4M	1.4 $\pm$ 20%	28	1	7.96	0.038	3.300
PN0403 – 1R8M	1.8 $\pm$ 20%	28	1	7.96	0.042	2.910
PN0403 – 2R2M	2.2 $\pm$ 20%	28	1	7.96	0.047	2.600
PN0403 – 2R7M	2.7 $\pm$ 20%	28	1	7.96	0.052	2.430
PN0403 – 3R3M	3.3 $\pm$ 20%	28	1	7.96	0.058	2.150
PN0403 – 3R9M	3.9 $\pm$ 20%	28	1	7.96	0.076	1.980
PN0403 – 4R7M	4.7 $\pm$ 20%	28	1	7.96	0.094	1.700
PN0403 – 5R6M	5.6 $\pm$ 20%	28	1	7.96	0.101	1.600
PN0403 – 6R8M	6.8 $\pm$ 20%	28	1	7.96	0.117	1.410
PN0403 – 8R2M	8.2 $\pm$ 20%	28	1	7.96	0.132	1.260
PN0403 – 100M	10.0 $\pm$ 20%	28	1	2.52	0.182	1.150

### PN0403 (1µH – 1000µH)

PN0403 – 120M	12.0±20%	28	1	2.52	0.210	1.050
PN0403 – 150M	15.0±20%	28	1	2.52	0.235	0.920
PN0403 – 180M	18.0±20%	25	1	2.52	0.338	0.840
PN0403 – 220M	22.0±20%	25	1	2.52	0.378	0.760
PN0403 – 270M	27.0±20%	20	1	2.52	0.522	0.710
PN0403 – 330K	33.0±10%	20	1	2.52	0.540	0.640
PN0403 – 390K	39.0±10%	20	1	2.52	0.587	0.590
PN0403 – 470K	47.0±10%	20	1	2.52	0.844	0.540
PN0403 – 560K	56.0±10%	20	1	2.52	0.937	0.500
PN0403 – 680K	68.0±10%	20	1	2.52	1.117	0.460
PN0403 – 820K	82.0±10%	25	1	2.52	1.270	0.420
PN0403 – 101K	100.0±10%	35	1	0.796	1.900	0.350
PN0403 – 121K	120.0±10%	50	1	0.796	2.200	0.320
PN0403 – 151K	150.0±10%	50	1	0.796	3.400	0.260
PN0403 – 181K	180.0±10%	50	1	0.796	3.900	0.240
PN0403 – 221K	220.0±10%	50	1	0.796	4.400	0.220
PN0403 – 271K	270.0±10%	45	1	0.796	5.000	0.200
PN0403 – 331K	330.0±10%	40	1	0.796	6.000	0.170
PN0403 – 391K	390.0±10%	40	1	0.796	6.400	0.150
PN0403 – 471K	470.0±10%	50	1	0.796	7.000	0.130
PN0403 – 561K	560.0±10%	50	1	0.796	7.800	0.120
PN0403 – 681K	680.0±10%	40	1	0.796	8.600	0.110
PN0403 – 821K	820.0±10%	38	1	0.796	12.000	0.100
PN0403 – 102K	1000±10%	38	1	0.252	14.000	0.090

### PN0502 (100µH – 2700µH)

DWG No.	Inductance (µH)	Q ref.	Test Freq.		RDC (Ω) max.	I <sub>rms</sub> (mA) ΔT=20°C max.	I <sub>sat</sub> (mA) ΔL/L0A=10% typ.
			L (KHz)	Q (KHz)			
PN0502 – 101M	100.0±20%	20	100	7.96	1.5	270	265
PN0502 – 121M	120.0±20%	27	100	7.96	1.7	252	245
PN0502 – 151M	150.0±20%	28	100	7.96	2.2	237	232
PN0502 – 181M	180.0±20%	25	100	7.96	2.5	220	215
PN0502 – 221M	220.0±20%	32	100	7.96	3.2	204	200
PN0502 – 271M	270.0±20%	30	100	7.96	3.9	190	182
PN0502 – 331M	330.0±20%	40	100	7.96	5.0	174	165
PN0502 – 391M	390.0±20%	40	100	7.96	5.4	156	148

**PN0315 , PN0302 , PN0403 , PN0502 ,  
PN0602 , PN0603 , PN54 , PN75 ,  
PN105 , PN1011 & PN1307  
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**PN0502 (100µH – 2700µH)**

PN0502 – 471M	470.0±20%	32	100	7.96	6.5	140	130
PN0502 – 561M	560.0±20%	45	100	7.96	8.8	125	120
PN0502 – 681M	680.0±20%	40	100	7.96	10.5	110	105
PN0502 – 821M	820.0±20%	35	100	7.96	12.0	97	95
PN0502 – 102M	1000.0±20%	42	100	2.52	16.0	85	85
PN0502 – 122M	1200.0±20%	44	100	2.52	18.5	76	80
PN0502 – 152M	1500.0±20%	40	100	2.52	22.0	70	72
PN0502 – 182M	1800.0±20%	40	100	2.52	28.5	65	68
PN0502 – 222M	2200.0±20%	40	100	2.52	34.5	60	62
PN0502 – 272M	2700.0±20%	40	100	2.52	40.0	53	55

**PN0602 (1µH – 1000µH)**

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (mΩ) max.	I <sub>rms</sub> (A) ΔT=40°C max.	I <sub>sat</sub> (A) ΔL/L0A=10% typ.
			L (KHz)	Q (MHz)				
PN0602 – 1R0M	1.0±20%	14	100	7.96	90.0	30.0	4.50	4.60
PN0602 – 1R4M	1.4±20%	14	100	7.96	80.0	35.0	4.00	4.20
PN0602 – 1R8M	1.8±20%	13	100	7.96	70.0	40.0	3.30	3.50
PN0602 – 2R2M	2.2±20%	13	100	7.96	60.0	45.0	3.00	3.20
PN0602 – 2R7M	2.7±20%	13	100	7.96	55.0	50.0	2.80	3.00
PN0602 – 3R3M	3.3±20%	12	100	7.96	50.0	55.0	2.60	2.90
PN0602 – 3R9M	3.9±20%	12	100	7.96	45.0	60.0	2.40	2.70
PN0602 – 4R7M	4.7±20%	11	100	7.96	40.0	70.0	2.20	2.40
PN0602 – 5R6M	5.6±20%	11	100	7.96	36.0	85.0	2.00	2.30
PN0602 – 6R8M	6.8±20%	11	100	7.96	32.0	100.0	1.80	2.00
PN0602 – 8R2M	8.2±20%	11	100	7.96	30.0	110.0	1.60	1.90
PN0602 – 100M	10.0±20%	15	100	2.52	26.0	140.0	1.50	1.70
PN0602 – 120M	12.0±20%	15	100	2.52	24.0	150.0	1.40	1.60
PN0602 – 150M	15.0±20%	15	100	2.52	22.0	180.0	1.30	1.45
PN0602 – 180M	18.0±20%	15	100	2.52	20.0	220.0	1.20	1.30
PN0602 – 220M	22.0±20%	15	100	2.52	18.0	280.0	1.00	1.10
PN0602 – 270M	27.0±20%	12	100	2.52	16.0	320.0	0.90	1.05
PN0602 – 330K	33.0±10%	12	100	2.52	15.0	420.0	0.85	1.00
PN0602 – 390K	39.0±10%	12	100	2.52	14.0	480.0	0.75	0.80
PN0602 – 470K	47.0±10%	12	100	2.52	12.0	560.0	0.73	0.75
PN0602 – 560K	56.0±10%	12	100	2.52	11.0	700.0	0.65	0.70
PN0602 – 680K	68.0±10%	12	100	2.52	10.0	820.0	0.60	0.65

### PN0602 (1µH – 1000µH)

PN0602 – 820K	82.0±10%	12	100	2.52	9.5	1100.0	0.52	0.60
PN0602 – 101K	100.0±10%	22	100	0.796	8.5	1250.0	0.46	0.55
PN0602 – 121K	120.0±10%	22	100	0.796	8.0	1350.0	0.40	0.52
PN0602 – 151K	150.0±10%	22	100	0.796	7.0	1650.0	0.36	0.46
PN0602 – 181K	180.0±10%	24	100	0.796	6.5	1900.0	0.30	0.40
PN0602 – 221K	220.0±10%	24	100	0.796	6.0	2200.0	0.28	0.35
PN0602 – 271K	270.0±10%	24	100	0.796	5.5	3000.0	0.26	0.30
PN0602 – 331K	330.0±10%	34	100	0.796	5.0	3800.0	0.20	0.25
PN0602 – 391K	390.0±10%	34	100	0.796	4.5	4300.0	0.18	0.22
PN0602 – 471K	470.0±10%	36	100	0.796	4.0	5200.0	0.16	0.20
PN0602 – 561K	560.0±10%	36	100	0.796	3.8	6500.0	0.14	0.18
PN0602 – 681K	680.0±10%	36	100	0.796	3.5	7500.0	0.13	0.16
PN0602 – 821K	820.0±10%	36	100	0.796	3.0	9800.0	0.10	0.14
PN0602 – 102K	1000.0±10%	36	100	0.252	2.6	11000.0	0.08	0.12

### PN0603 (1.5µH – 470µH)

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (Ω) max.	IDC (A) max.
			L (KHz)	Q (MHz)			
PN0603 – 1R5M	1.5±20%	24	1	7.96	85.0	0.040	3.00
PN0603 – 2R5M	2.5±20%	21	1	7.96	74.0	0.045	2.35
PN0603 – 3R3M	3.3±20%	21	1	7.96	68.0	0.048	2.20
PN0603 – 3R9M	3.9±20%	22	1	7.96	62.0	0.050	2.10
PN0603 – 4R7M	4.7±20%	20	1	7.96	56.0	0.066	1.80
PN0603 – 5R0M	5.0±20%	19	1	7.96	50.0	0.070	1.60
PN0603 – 6R8M	6.8±20%	19	1	7.96	44.0	0.110	1.38
PN0603 – 7R5M	7.5±20%	19	1	7.96	38.0	0.120	1.29
PN0603 – 100M	10.0±20%	24	1	2.52	34.0	0.150	1.14
PN0603 – 120M	12.0±20%	23	1	2.52	30.0	0.160	1.02
PN0603 – 150M	15.0±20%	22	1	2.52	28.0	0.180	0.93
PN0603 – 180M	18.0±20%	23	1	2.52	24.0	0.250	0.82
PN0603 – 220M	22.0±20%	20	1	2.52	20.0	0.275	0.75
PN0603 – 270M	27.0±20%	19	1	2.52	19.0	0.300	0.67
PN0603 – 330K	33.0±10%	23	1	2.52	15.0	0.450	0.61
PN0603 – 390K	39.0±10%	22	1	2.52	13.0	0.460	0.56
PN0603 – 470K	47.0±10%	20	1	2.52	13.0	0.550	0.52
PN0603 – 560K	56.0±10%	17	1	2.52	12.0	0.615	0.48

**PN0315 , PN0302 , PN0403 , PN0502 ,  
PN0602 , PN0603 , PN54 , PN75 ,  
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**PN0603 (1.5µH – 470µH)**

PN0603 – 680K	68.0±10%	17	1	2.52	12.0	0.720	0.44
PN0603 – 820K	82.0±10%	15	1	2.52	11.0	0.840	0.40
PN0603 – 101K	100.0±10%	28	1	0.796	9.6	0.950	0.38
PN0603 – 121K	120.0±10%	27	1	0.796	8.1	1.100	0.36
PN0603 – 151K	150.0±10%	28	1	0.796	7.5	1.430	0.32
PN0603 – 181K	180.0±10%	26	1	0.796	6.9	1.600	0.30
PN0603 – 221K	220.0±10%	26	1	0.796	5.5	2.000	0.26
PN0603 – 271K	270.0±10%	26	1	0.796	4.9	2.400	0.24
PN0603 – 331K	330.0±10%	28	1	0.796	4.7	3.200	0.20
PN0603 – 391K	390.0±10%	28	1	0.796	4.1	3.400	0.18
PN0603 – 471K	470.0±10%	29	1	0.796	3.5	4.550	0.15

**PN54 (1.2µH – 820µH)**

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (Ω) max.	IDC (A) max.
			L (KHz)	Q (MHz)			
PN54 – 1R2M	1.2±20%	35	1	7.96	155.0	0.020	4.20
PN54 – 1R5M	1.5±20%	32	1	7.96	108.0	0.024	3.60
PN54 – 2R2M	2.2±20%	33	1	7.96	79.0	0.031	2.80
PN54 – 2R7M	2.7±20%	22	1	7.96	65.0	0.055	2.30
PN54 – 3R3M	3.3±20%	22	1	7.96	60.0	0.060	2.00
PN54 – 3R9M	3.9±20%	22	1	7.96	40.0	0.065	1.90
PN54 – 4R7M	4.7±20%	20	1	7.96	34.0	0.070	1.80
PN54 – 5R6M	5.6±20%	20	1	7.96	30.0	0.075	1.70
PN54 – 6R8M	6.8±20%	20	1	7.96	28.0	0.080	1.60
PN54 – 8R2M	8.2±20%	20	1	7.96	26.0	0.090	1.50
PN54 – 100M	10.0±20%	30	1	2.52	23.0	0.100	1.45
PN54 – 120M	12.0±20%	30	1	2.52	22.0	0.120	1.40
PN54 – 150L	15.0±15%	30	1	2.52	20.0	0.140	1.30
PN54 – 180L	18.0±15%	30	1	2.52	18.0	0.150	1.25
PN54 – 220L	22.0±15%	30	1	2.52	16.0	0.190	1.10
PN54 – 270L	27.0±15%	28	1	2.52	14.0	0.220	1.00
PN54 – 330K	33.0±10%	24	1	2.52	13.0	0.250	0.88
PN54 – 390K	39.0±10%	24	1	2.52	13.0	0.320	0.80
PN54 – 470K	47.0±10%	22	1	2.52	12.0	0.370	0.72
PN54 – 560K	56.0±10%	22	1	2.52	11.0	0.420	0.68
PN54 – 680K	68.0±10%	22	1	2.52	10.0	0.520	0.62

**PN0315 , PN0302 , PN0403 , PN0502 ,  
PN0602 , PN0603 , PN54 , PN75 ,  
PN105 , PN1011 & PN1307  
SMD Power Inductors Unshielded**



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**PN54 (1.2µH – 820µH)**

PN54 – 820K	82.0±10%	20	1	2.52	9.0	0.600	0.58
PN54 – 101K	100.0±10%	20	1	0.796	8.5	0.700	0.52
PN54 – 121K	120.0±10%	22	1	0.796	6.6	0.930	0.48
PN54 – 151K	150.0±10%	22	1	0.796	6.2	1.100	0.40
PN54 – 181K	180.0±10%	20	1	0.796	6.0	1.380	0.38
PN54 – 221K	220.0±10%	20	1	0.796	5.6	1.570	0.35
PN54 – 271K	270.0±10%	26	1	0.796	3.9	1.880	0.32
PN54 – 331K	330.0±10%	25	1	0.796	3.3	2.250	0.27
PN54 – 391K	390.0±10%	25	1	0.796	3.1	2.480	0.25
PN54 – 471K	470.0±10%	25	1	0.796	2.9	3.300	0.21
PN54 – 561K	560.0±10%	24	1	0.796	2.5	4.000	0.18
PN54 – 681K	680.0±10%	26	1	0.796	2.3	4.650	0.16
PN54 – 821K	820.0±10%	25	1	0.796	2.0	5.200	0.14

**PN75 (1.5µH – 4700µH)**

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (Ω) max.	IDC (A) max.
			L (KHz)	Q (MHz)			
PN75 – 1R5M	1.5±20%	32	1	7.96	120.0	0.015	6.00
PN75 – 2R5M	2.5±20%	32	1	7.96	70.0	0.020	5.00
PN75 – 3R3M	3.3±20%	32	1	7.96	55.0	0.022	4.60
PN75 – 3R9M	3.9±20%	32	1	7.96	45.0	0.024	4.40
PN75 – 4R7M	4.7±20%	31	1	7.96	38.0	0.033	3.70
PN75 – 5R6M	5.6±20%	31	1	7.96	34.0	0.035	3.50
PN75 – 6R8M	6.8±20%	30	1	7.96	33.0	0.040	3.20
PN75 – 8R2M	8.2±20%	29	1	7.96	30.0	0.050	2.80
PN75 – 100M	10.0±20%	25	1	2.52	22.0	0.070	2.30
PN75 – 120M	12.0±20%	25	1	2.52	20.0	0.080	2.00
PN75 – 150M	15.0±20%	25	1	2.52	16.0	0.090	1.80
PN75 – 180M	18.0±20%	20	1	2.52	15.0	0.100	1.60
PN75 – 220M	22.0±20%	20	1	2.52	13.0	0.110	1.50
PN75 – 270M	27.0±20%	20	1	2.52	12.0	0.120	1.30
PN75 – 330K	33.0±10%	15	1	2.52	10.0	0.140	1.20
PN75 – 390K	39.0±10%	15	1	2.52	9.5	0.160	1.10
PN75 – 470K	47.0±10%	15	1	2.52	9.0	0.200	1.00
PN75 – 560K	56.0±10%	15	1	2.52	8.5	0.240	0.94
PN75 – 680K	68.0±10%	15	1	2.52	8.0	0.300	0.85



**PN0315 , PN0302 , PN0403 , PN0502 ,  
PN0602 , PN0603 , PN54 , PN75 ,  
PN105 , PN1011 & PN1307  
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**PN75 (1.5µH – 4700µH)**

PN75 – 820K	82.0±10%	12	1	2.52	7.0	0.370	0.78
PN75 – 101K	100.0±10%	12	1	0.796	6.5	0.450	0.72
PN75 – 121K	120.0±10%	12	1	0.796	5.6	0.480	0.66
PN75 – 151K	150.0±10%	12	1	0.796	5.5	0.680	0.58
PN75 – 181K	180.0±10%	12	1	0.796	5.0	0.770	0.51
PN75 – 221K	220.0±10%	12	1	0.796	4.8	0.960	0.49
PN75 – 271K	270.0±10%	12	1	0.796	4.5	1.110	0.42
PN75 – 331K	330.0±10%	12	1	0.796	4.3	1.260	0.40
PN75 – 391K	390.0±10%	12	1	0.796	4.0	1.770	0.36
PN75 – 471K	470.0±10%	12	1	0.796	3.8	1.960	0.34
PN75 – 561K	560.0±10%	30	1	0.796	3.7	2.500	0.30
PN75 – 681K	680.0±10%	29	1	0.796	3.5	2.800	0.28
PN75 – 821K	820.0±10%	28	1	0.796	3.2	4.000	0.23
PN75 – 102K	1000.0±10%	27	1	0.252	3.0	4.500	0.21
PN75 – 122K	1200.0±10%	28	1	0.252	2.6	6.800	0.17
PN75 – 152K	1500.0±10%	27	1	0.252	2.4	8.000	0.15
PN75 – 182K	1800.0±10%	30	1	0.252	1.6	9.200	0.14
PN75 – 222K	2200.0±10%	29	1	0.252	1.5	10.000	0.13
PN75 – 272K	2700.0±10%	31	1	0.252	1.4	11.800	0.12
PN75 – 332K	3300.0±10%	28	1	0.252	1.2	16.500	0.10
PN75 – 392K	3900.0±10%	28	1	0.252	1.1	18.000	0.09
PN75 – 472K	4700.0±10%	30	1	0.252	1.0	21.000	0.08

**PN105 (1.5µH – 4700µH)**

DWG No.	Inductance (µH)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (Ω) max.	IDC (A) max.
			L (KHz)	Q (MHz)			
PN105 – 1R5M	1.5±20%	35	1	7.96	105.0	0.018	6.40
PN105 – 2R2M	2.2±20%	35	1	7.96	68.0	0.021	5.40
PN105 – 3R3M	3.3±20%	34	1	7.96	55.0	0.024	5.00
PN105 – 3R9M	3.9±20%	34	1	7.96	48.0	0.027	4.60
PN105 – 4R7M	4.7±20%	33	1	7.96	40.0	0.036	4.00
PN105 – 5R6M	5.6±20%	33	1	7.96	35.0	0.040	3.80
PN105 – 6R8M	6.8±20%	33	1	7.96	32.0	0.044	3.40
PN105 – 8R2M	8.2±20%	31	1	7.96	24.0	0.048	3.00
PN105 – 100M	10.0±20%	30	1	2.52	21.0	0.060	2.60
PN105 – 120M	12.0±20%	30	1	2.52	20.0	0.070	2.45

### PN105 (1.5µH – 4700µH)

PN105 – 150M	15.0±20%	30	1	2.52	16.0	0.080	2.25
PN105 – 180M	18.0±20%	30	1	2.52	15.0	0.090	2.15
PN105 – 220M	22.0±20%	25	1	2.52	13.0	0.100	1.95
PN105 – 270M	27.0±20%	25	1	2.52	11.0	0.110	1.75
PN105 – 330K	33.0±10%	25	1	2.52	10.0	0.120	1.50
PN105 – 390K	39.0±10%	20	1	2.52	9.0	0.140	1.35
PN105 – 470K	47.0±10%	20	1	2.52	8.0	0.170	1.25
PN105 – 560K	56.0±10%	20	1	2.52	7.5	0.190	1.15
PN105 – 680K	68.0±10%	15	1	2.52	7.0	0.220	1.10
PN105 – 820K	82.0±10%	15	1	2.52	6.0	0.250	1.00
PN105 – 101K	100.0±10%	15	1	0.796	5.2	0.350	0.97
PN105 – 121K	120.0±10%	15	1	0.796	5.0	0.400	0.89
PN105 – 151K	150.0±10%	15	1	0.796	4.5	0.470	0.78
PN105 – 181K	180.0±10%	12	1	0.796	4.0	0.630	0.72
PN105 – 221K	220.0±10%	12	1	0.796	3.8	0.730	0.66
PN105 – 271K	270.0±10%	12	1	0.796	3.5	0.970	0.57
PN105 – 331K	330.0±10%	12	1	0.796	3.2	1.150	0.52
PN105 – 391K	390.0±10%	12	1	0.796	3.0	1.300	0.48
PN105 – 471K	470.0±10%	12	1	0.796	2.5	1.480	0.42
PN105 – 561K	560.0±10%	12	1	0.796	2.3	1.900	0.33
PN105 – 681K	680.0±10%	12	1	0.796	2.1	2.250	0.28
PN105 – 821K	820.0±10%	10	1	0.796	2.0	2.550	0.24
PN105 – 102K	1000.0±10%	29	1	0.252	1.9	3.100	0.23
PN105 – 122K	1200.0±10%	32	1	0.252	1.8	4.200	0.21
PN105 – 152K	1500.0±10%	31	1	0.252	1.7	5.000	0.19
PN105 – 182K	1800.0±10%	31	1	0.252	1.6	6.800	0.17
PN105 – 222K	2200.0±10%	31	1	0.252	1.5	7.600	0.16
PN105 – 272K	2700.0±10%	32	1	0.252	1.4	11.600	0.14
PN105 – 332K	3300.0±10%	32	1	0.252	1.3	13.500	0.12
PN105 – 392K	3900.0±10%	31	1	0.252	1.2	14.800	0.11
PN105 – 472K	4700.0±10%	32	1	0.252	0.8	18.000	0.10

### PN1011 (10 $\mu$ H – 1000 $\mu$ H)

DWG No.	Inductance ( $\mu$ H)	SRF (MHz) typ.	RDC ( $\Omega$ ) max.	Irms 1 $\Delta T=20^{\circ}C$ typ.	Irms 2 $\Delta T=40^{\circ}C$ max.	Isat $\Delta L/L0A=10\%$ max.
PN1011 – 100M	10.0 $\pm$ 20%	18.0	0.035	3.50	5.00	8.00
PN1011 – 150M	15.0 $\pm$ 20%	13.0	0.045	3.00	4.00	7.00
PN1011 – 220M	22.0 $\pm$ 20%	12.0	0.065	2.50	3.20	5.50
PN1011 – 330M	33.0 $\pm$ 20%	9.5	0.080	2.00	2.60	4.00
PN1011 – 470M	47.0 $\pm$ 20%	7.0	0.110	1.70	2.20	3.80
PN1011 – 680M	68.0 $\pm$ 20%	5.8	0.150	1.50	2.00	3.00
PN1011 – 101K	100.0 $\pm$ 10%	4.8	0.200	1.30	1.80	2.50
PN1011 – 151K	150.0 $\pm$ 10%	3.8	0.320	1.00	1.50	2.00
PN1011 – 221K	220.0 $\pm$ 10%	3.1	0.420	0.90	1.20	1.70
PN1011 – 331K	330.0 $\pm$ 10%	2.5	0.700	0.70	0.90	1.30
PN1011 – 471K	470.0 $\pm$ 10%	2.1	0.900	0.50	0.75	1.10
PN1011 – 681K	680.0 $\pm$ 10%	1.7	1.250	0.40	0.60	1.00
PN1011 – 102K	1000.0 $\pm$ 10%	1.4	1.900	0.30	0.50	0.80

### PN1307 (1.5 $\mu$ H – 1000 $\mu$ H)

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq.		SRF (MHz) nom.	RDC (m $\Omega$ ) max.	Irms (A)	Isat (A)
			L (KHz)	Q (MHz)				
PN1307 – 1R5M	1.5 $\pm$ 20%	20	100	7.96	65.0	5.0	9.50	20.00
PN1307 – 2R2M	2.2 $\pm$ 20%	22	100	7.96	50.0	6.0	9.00	18.00
PN1307 – 2R7M	2.7 $\pm$ 20%	24	100	7.96	40.0	8.0	8.20	16.00
PN1307 – 3R3M	3.3 $\pm$ 20%	26	100	7.96	38.0	8.7	7.50	15.00
PN1307 – 4R7M	4.7 $\pm$ 20%	25	100	7.96	36.0	10.0	7.00	13.00
PN1307 – 5R6M	5.6 $\pm$ 20%	24	100	7.96	28.0	15.0	6.50	11.00
PN1307 – 6R8M	6.8 $\pm$ 20%	24	100	7.96	26.0	17.0	6.00	10.50
PN1307 – 8R2M	8.2 $\pm$ 20%	24	100	7.96	24.0	19.0	5.80	9.80
PN1307 – 100M	10.0 $\pm$ 20%	22	100	2.52	22.0	21.0	5.60	9.20
PN1307 – 120M	12.0 $\pm$ 20%	25	100	2.52	20.0	30.0	4.80	8.00
PN1307 – 150M	15.0 $\pm$ 20%	28	100	2.52	17.0	34.0	4.50	7.50
PN1307 – 180M	18.0 $\pm$ 20%	28	100	2.52	16.0	36.0	4.20	7.00
PN1307 – 220M	22.0 $\pm$ 20%	40	100	2.52	15.0	47.0	3.60	6.50
PN1307 – 270M	27.0 $\pm$ 20%	35	100	2.52	11.0	60.0	3.30	5.50
PN1307 – 330K	33.0 $\pm$ 10%	35	100	2.52	10.0	65.0	3.10	5.00
PN1307 – 390K	39.0 $\pm$ 10%	28	100	2.52	9.0	75.0	2.90	4.60
PN1307 – 470K	47.0 $\pm$ 10%	24	100	2.52	7.5	82.0	2.70	4.20

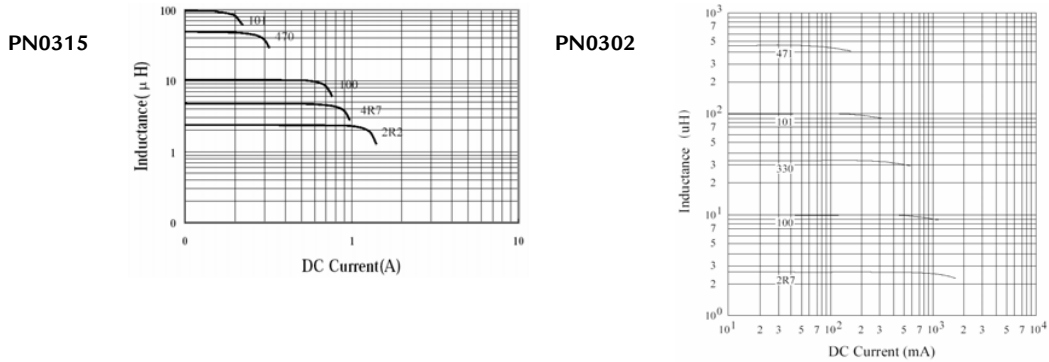
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## PN1307 (1.5µH – 1000µH)

PN1307 – 560K	56.0±10%	22	100	2.52	7.2	100.0	2.50	3.80
PN1307 – 680K	68.0±10%	24	100	2.52	7.0	120.0	2.30	3.50
PN1307 – 820K	82.0±10%	18	100	2.52	6.0	140.0	2.10	3.20
PN1307 – 101K	100.0±10%	25	100	0.796	5.8	180.0	1.90	3.00
PN1307 – 121K	120.0±10%	20	100	0.796	5.5	210.0	1.80	2.80
PN1307 – 151K	150.0±10%	20	100	0.796	4.5	250.0	1.60	2.60
PN1307 – 181K	180.0±10%	18	100	0.796	4.0	280.0	1.50	2.30
PN1307 – 221K	220.0±10%	15	100	0.796	3.8	360.0	1.30	2.10
PN1307 – 271K	270.0±10%	15	100	0.796	3.5	410.0	1.20	1.80
PN1307 – 331K	330.0±10%	15	100	0.796	3.2	520.0	1.10	1.60
PN1307 – 391K	390.0±10%	12	100	0.796	2.5	600.0	1.00	1.50
PN1307 – 471K	470.0±10%	12	100	0.796	2.2	720.0	0.90	1.40
PN1307 – 561K	560.0±10%	10	100	0.796	2.0	880.0	0.85	1.30
PN1307 – 681K	680.0±10%	10	100	0.796	1.6	1000.0	0.80	1.20
PN1307 – 821K	820.0±10%	10	100	0.796	1.5	1300.0	0.75	1.10
PN1307 – 102K	1000.0±10%	10	100	0.252	1.4	1600.0	0.65	1.00

## 6. Curve

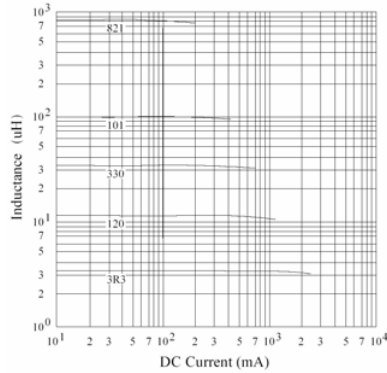
### Inductance VS. DC Current Curve



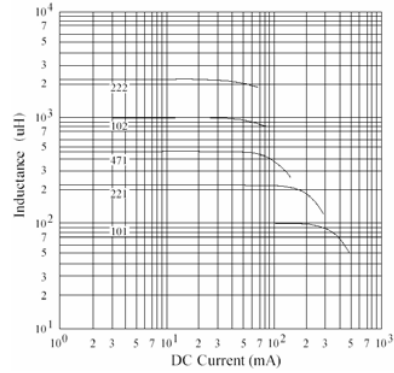
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**Inductance VS. DC Current Curve**

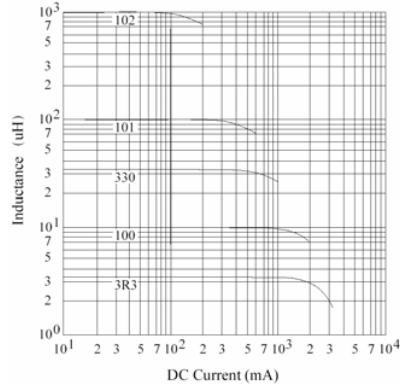
**PN0403**



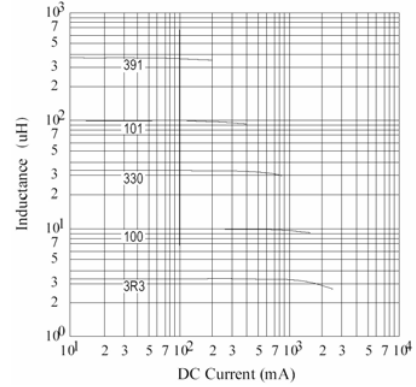
**PN0502**



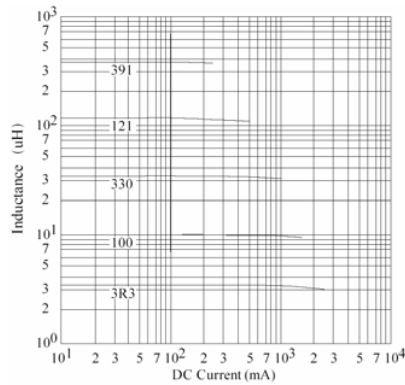
**PN0602**



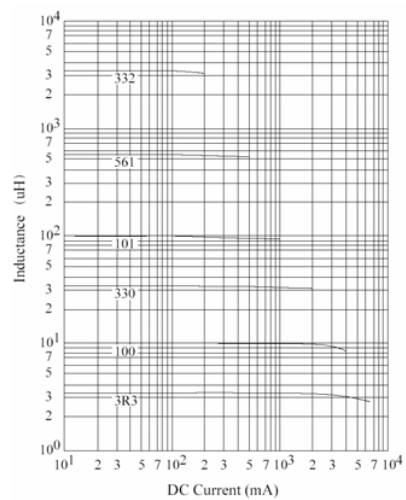
**PN0603**



**PN54**



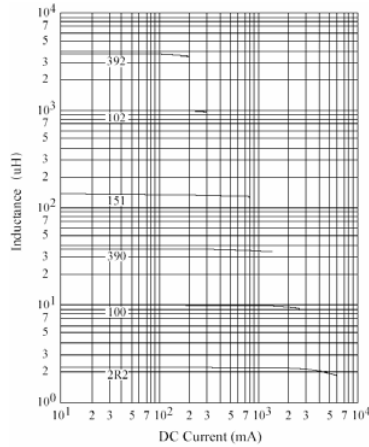
**PN75**



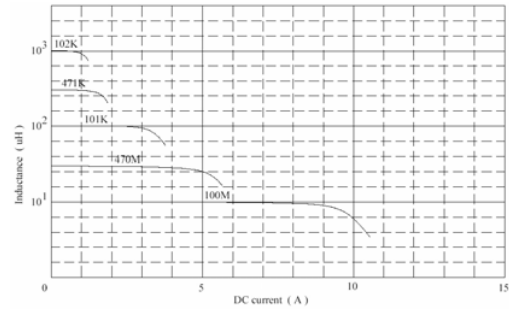
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**Inductance VS. DC Current Curve**

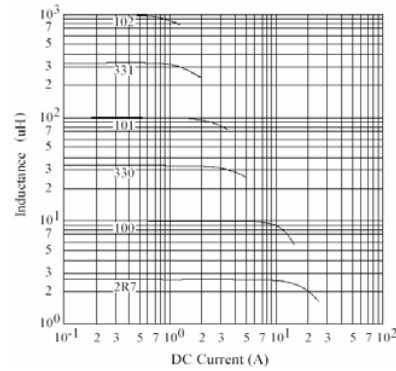
**PN105**



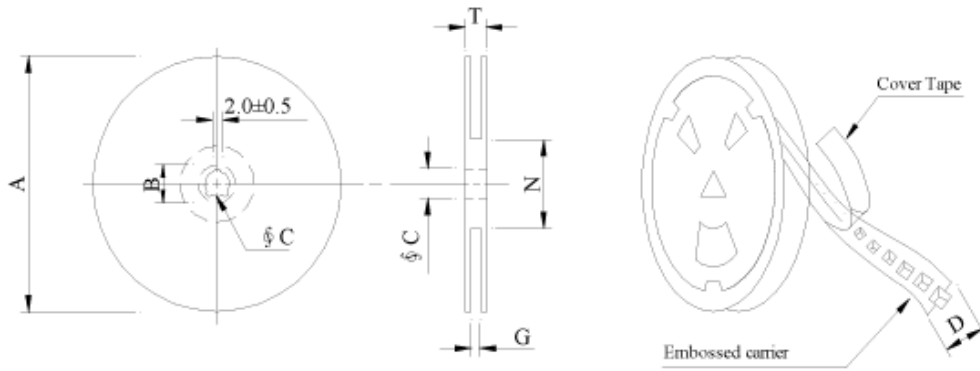
**PN1011**



**PN1307**



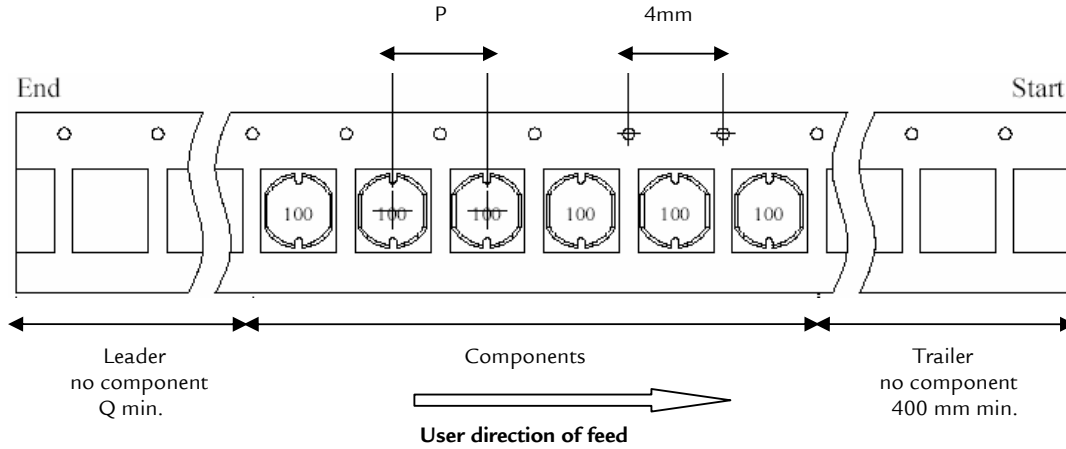
**7. Packaging Information**



※Carrier tape width : D

**PN0315 , PN0302 , PN0403 , PN0502 ,  
PN0602 , PN0603 , PN54 , PN75 ,  
PN105 , PN1011 & PN1307**  
**SMD Power Inductors Unshielded**

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(PN0315, PN0302 → P = 4mm) (PN0403, PN0502, PN0602, PN0603, PN54 → P = 8mm) (PN75, PN105 → P = 12mm) (PN1011, PN1307 → P = 20mm)  
(PN0315, PN0302, PN0403, PN0502, PN0602, PN0603, PN105, PN1307 → Q = 160mm) (PN54, PN75, PN1011 → Q = 200mm)

**PN0315**

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 – 08	178	21±0.8	13	8	10 <sup>+0</sup>	50 <sup>-0</sup>	12.5

**PN0302 & PN0403**

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 – 12	330	21±0.8	13±0.5	12	14 <sup>+0</sup>	50 <sup>-0</sup>	18.4

**PN0502 & PN0602**

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 – 12	178	21±0.8	13±0.5	12	14 <sup>+0</sup>	50 <sup>-0</sup>	16.5

**PN0603 & PN54**

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
07 – 12	178	21±0.8	13	12	14 <sup>+0</sup>	50 <sup>-0</sup>	16.5
13 – 12	330	21±0.8	13±0.5	12	14 <sup>+0</sup>	50 <sup>-0</sup>	18.4

**PN75**

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

**PN0315 , PN0302 , PN0403 , PN0502 ,  
PN0602 , PN0603 , PN54 , PN75 ,  
PN105 , PN1011 & PN1307**  
SMD Power Inductors Unshielded



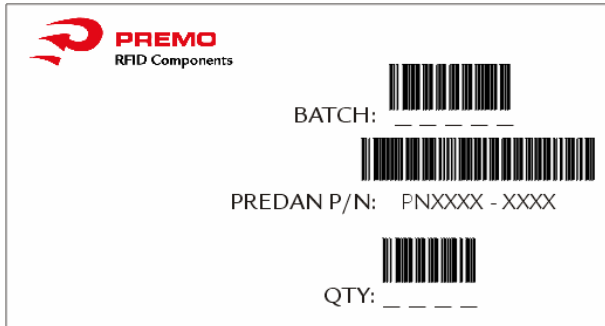
C/Severo Ochoa 33 – Parque Tecnológico de Andalucía. 29590 Campanillas .Málaga (Spain) **Phone** +34 951 231 320 **Fax** +34 951 231 321  
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**PN105, PN1011 & PN1307**

Style	Dimensions [mm]						
	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26 <sup>+0</sup>	50 <sup>-0</sup>	30.4

Series	Inner : Reel			Outer : Carton		
	Q'TY(pcs)	G.W.(gw)	Style	Q'TY(pcs)	G.W.(Kg)	Size(cm)
PN0315	2,000	600	07 - 08	100,000	11.9	42 x 41 x 24
PN0302	2,500	300	07 - 08	50,000	5.8	42 x 41 x 24
PN0403	2,000	1,100	13 - 12	16,000	11.9	40 x 40 x 24
PN0502	800	416	07 - 12	32,000	16.6	42 x 41 x 24
PN0602	700	220	07 - 12	28,000	9.6	42 x 41 x 24
PN0603	400	260	07 - 12	16,000	8.5	42 x 41 x 24
PN0603	1,500	650	13 - 12	12,000	8.0	40 x 40 x 24
PN54	400	300	07 - 12	16,000	10.0	42 x 41 x 24
PN54	1,500	1,180	13 - 12	12,000	11.5	40 x 40 x 24
PN75	1,000	1,300	13 - 16	6,000	10.5	40 x 40 x 24
PN105	800	1,800	13 - 24	3,200	9.5	40 x 40 x 24
PN1011	250	1,070	13 - 24	1,000	6.0	40 x 40 x 24
PN1307	400	1,800	13 - 24	1,600	9.5	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%	$\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{-25 \pm 2^\circ\text{C}}{30 \text{ minutes}}$  $\frac{\text{Room temp.}}{15 \text{ minutes}} \longrightarrow \frac{85 \pm 2^\circ\text{C}}{30 \text{ minutes}}$  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 : 105±2°C 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
2 <sup>nd</sup>	11/02/08	PN0302 reel size changed and qty per reel increased up to 2500	Federico Martin