SMD POWER COIL-*JNR 252012P*

PRODUCT IDENTIFICATION

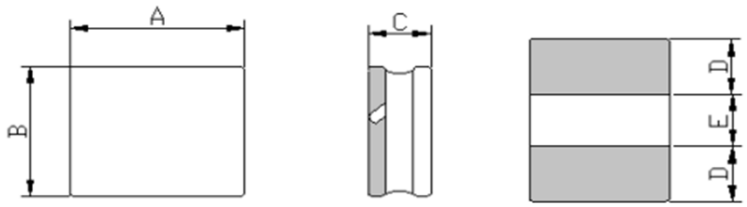
JNR 252012 P – 2R2 M

- JNR: Type
- 252012: Size
- P: Lead Free
- 2R2: Inductance
- M: Tol.

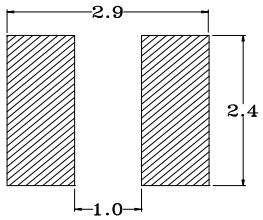
FEATURES

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature :-40~+125℃
   (Including self - temperature rise)

DIMENSIONS (mm)



Recommended PC Board Pattern



Part No.	Size (mm)				
	A	B	C	D	E
JNR 252012P	2.5 -0.1/+0.2	2.0 -0.1/+0.2	1.2 Max	0.75 ref	1.00 ref

SERIES LIST

No.	Part No.	L (μH)	TOL. (%)	RDC (Ω)		I sat (A)		I rms (A)	
				Max.	Typ.	Max.	Typ.	Max.	Typ.
1	JNR 252012P-R24M	0.24	±20	0.015	0.011	6.50	7.80	6.00 (1) 6.50 (2)	7.00 (1) 7.50 (2)
2	JNR 252012P-R33M	0.33	±20	0.023	0.017	6.00	7.00	4.80 (1) 5.20 (2)	5.80 (1) 6.30 (2)
3	JNR 252012P-R47M	0.47	±20	0.027	0.021	5.50	6.50	4.20 (1) 4.70 (2)	5.00 (1) 5.50 (2)
4	JNR 252012P-R68M	0.68	±20	0.037	0.030	5.00	6.00	3.90 (1) 4.20 (2)	4.50 (1) 5.00 (2)
5	JNR 252012P-1R0M	1.00	±20	0.044	0.036	3.80	4.50	3.50 (1) 4.00 (2)	4.00 (1) 4.50 (2)
6	JNR 252012P-1R5M	1.50	±20	0.060	0.050	3.20	3.80	3.00 (1) 3.50 (2)	3.50 (1) 4.00 (2)
7	JNR 252012P-2R2M	2.20	±20	0.084	0.070	2.20	2.60	2.20 (1) 2.50 (2)	2.60 (1) 3.00 (2)
8	JNR 252012P-3R3M	3.30	±20	0.140	0.115	2.00	2.30	1.80 (1) 2.00 (2)	2.00 (1) 2.20 (2)
9	JNR 252012P-4R7M	4.70	±20	0.150	0.125	1.50	1.70	1.50 (1) 1.70 (2)	1.70 (1) 1.90 (2)

Note:

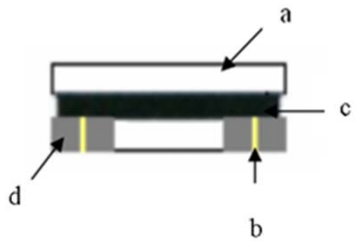
1. Test Frequency: 1MHz /1V
2. All test data referenced to 25℃ ambient
3. Isat：Saturation Current (Isat) will cause L0 to drop approximately 30%
4. Irms：Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. Rated DC current: The lower value of Irms and Isat

Measurement board data

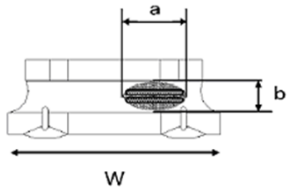
Irms1
Material : FR4
Board dimensions : 100 X 50 X 1.6t mm
Pattern dimensions: 45 X 30 mm (Double side board)
Pattern thickness : 50 μm

Irms2
Material : FR4
Board dimensions : 100 X 50 X 1.6t mm
Pattern dimensions: 45 X 45 mm (Double side board)
Pattern thickness : 70 μm

Materials



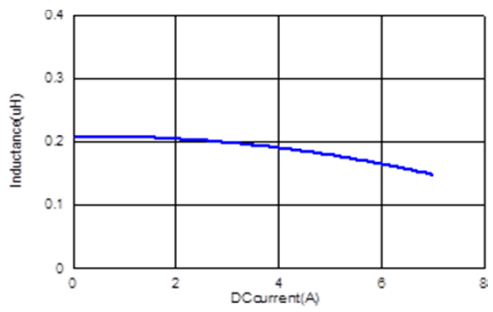
No.	Description	Specification
a	Core	Ferrite Core
b	Wire	Enameled Copper Wire
c	Glue	Epoxy with magnetic powder
d	Terminal	Ag/Ni/Sn



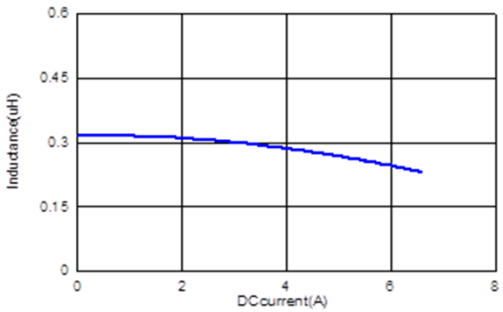
Appearance of exposed wire tolerance limit :
1.Width direction（dimension a）：Acceptable when a≦w/2
Nonconforming when a＞w/2
2.Length direction（dimension b）：Dimension b is not specified.
3.The total area of exposed wire occurring to each sides is
not greater than 50% of coating resin area, and is acceptable.

Typical Performance Curves

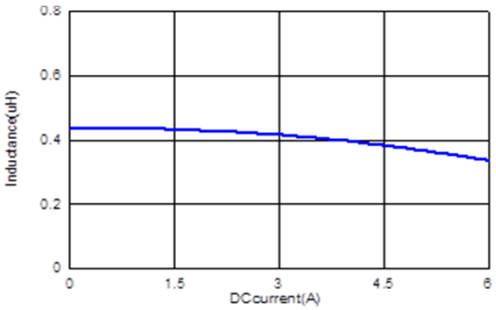
JNR 252012P-R24



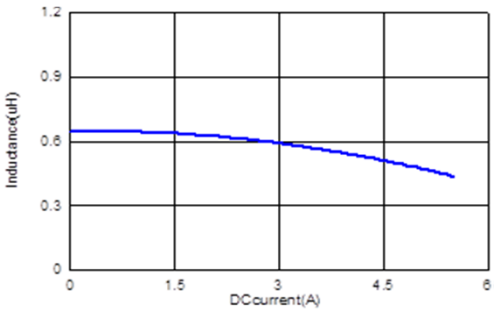
JNR 252012P-R33



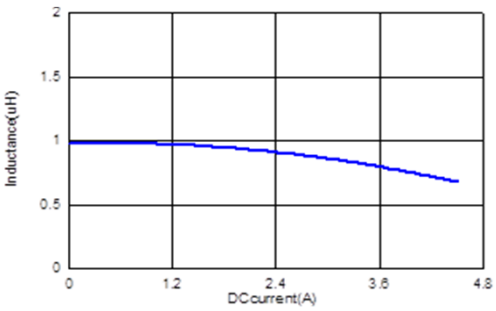
JNR 252012P-R47



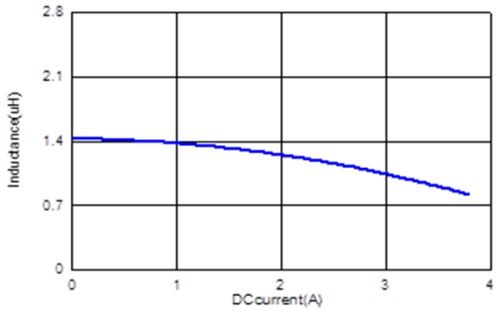
JNR 252012P-R68



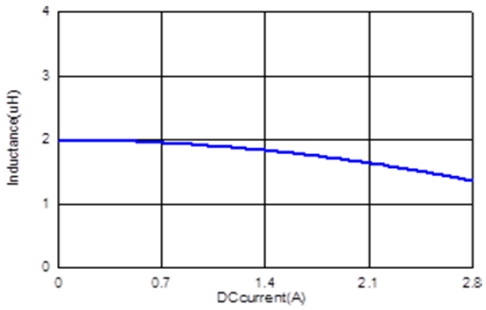
JNR 252012P-1R0



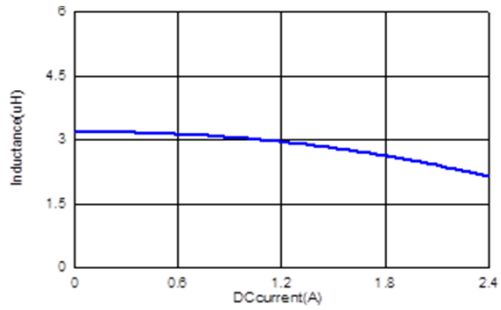
JNR 252012P-1R5



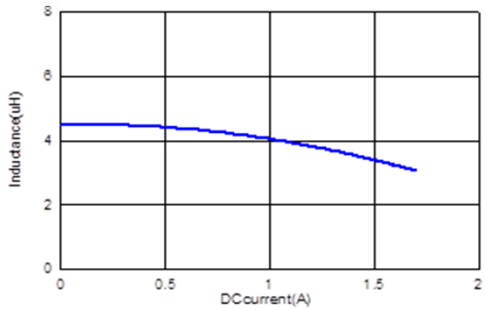
JNR 252012P-2R2



JNR 252012P-3R3

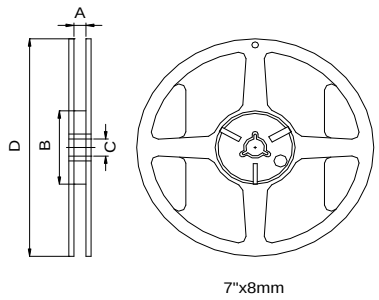


JNR 252012P-4R7



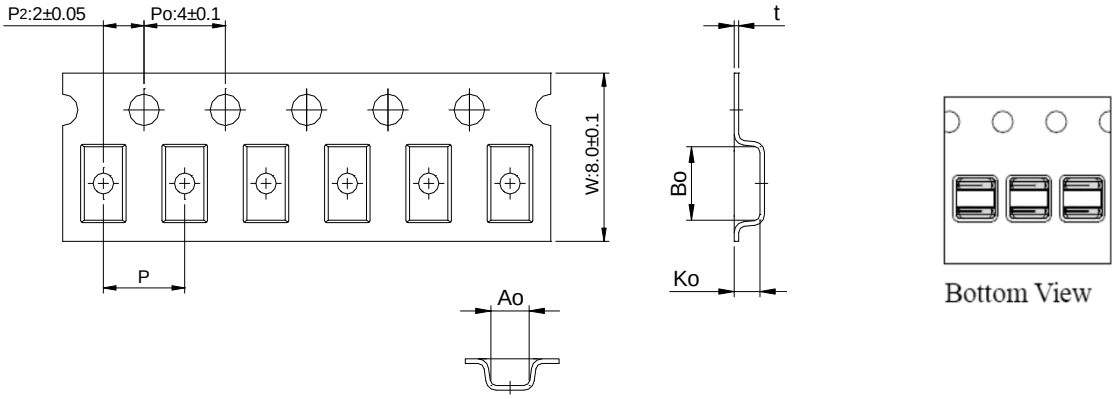
Packaging Information

• Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±1.0	50 min.	13±0.8	178±2

• Tape Dimension

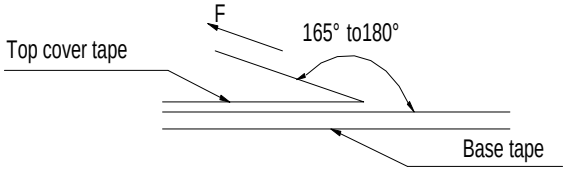


Ao(mm)	Bo(mm)	Ko(mm)	P(mm)	t(mm)
2.45±0.1	2.85±0.1	1.40±0.1	4.0±0.1	0.23±0.05

• Packaging Quantity

Size	Reel
JNR 252012P	2000

• Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions

Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

■ Application Notice

・Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

1. Products meet IPC/JEDEC J-STD-020D standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40℃ and 60% RH.
3. Recommended products should be used within 12 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

・Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.