

## FEATURES

- Various high power inductors are superior to be high saturation.
- Suitable for surface mounting equipment .
- Takes up less PCB real estate and save more power.
- Operating Temperature: -40°C~+125°C .
- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels.
- Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference .
- Packing:Tape Carrier Package.



## APPLICATIONS

- Smart phone, smart TV, set top box, notebook.
- Car navigation systems, telecomm basestations.
- RoHS, Halogen Free and REACH Compliance.
- VR, AR.
- LED lighting.

## PART NUMBERING



① Grade	
A	Grade Code

② Series Name	
NRL	Wire Wound Power Inductor

③ Dimensions Code	
Code	Dimensions (L×W×H)[mm]
201610	2.0×1.6×1.0
252010	2.5×2.0×1.0
252012	2.5×2.0×1.2

⑥ Design Code	
□ □	Standard product is blank

④ Nominal inductance	
Code (example)	Nominal inductance [μH]
4R7	4.7
100	10

⑤ Inductance tolerance	
Code (example)	Inductance tolerance
M	±20%
N	±30%

Dimensions & Recommended Land Pattern



Recommended Land Pattern

Unit: mm

Series	Dimensions						Recommended Land Pattern		
	A	B	C	D Typ.	E Typ.	F Typ.	a Typ.	b Typ.	c Typ.
ANR201610	2.0±0.3	1.6±0.3	1.05 Max.	1.2	0.6	0.8	0.6	0.8	1.6
ANR252010	2.5±0.3	2.0±0.3	1.0 Max.	2	0.75	0.95	0.8	0.9	2.1
ANR252012	2.5±0.3	2.0±0.3	1.2 Max.	2	0.75	0.95	0.8	0.9	2.1

Electrical Characteristics

● ANRL201610 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Max.
Units	μH	M=±20% N=±30%	A		A		Ω
Symbol	L		I <sub>rms</sub>	I <sub>sat</sub>			DCR
ANRL201610-R22□	0.22	M/N	2.80	3.10	3.70	4.10	0.040
ANRL201610-R24□	0.24	M/N	2.80	3.10	3.70	4.10	0.040
ANRL201610-R33□	0.33	M/N	2.40	2.90	3.00	3.70	0.048
ANRL201610-R47□	0.47	M/N	2.30	2.60	2.30	2.85	0.060
ANRL201610-R68□	0.68	M/N	2.00	2.20	1.95	2.45	0.076
ANRL201610-1R0□	1	M/N	1.45	1.60	1.65	1.85	0.114
ANRL201610-1R5□	1.5	M/N	1.10	1.20	1.35	1.65	0.174
ANRL201610-2R2M	2.2	M	1.05	1.15	1.20	1.45	0.265
ANRL201610-3R3M	3.3	M	0.85	0.95	1.00	1.20	0.345
ANRL201610-4R7M	4.7	M	0.70	0.80	0.75	0.90	0.480
ANRL201610-6R8M	6.8	M	0.55	0.60	0.70	0.85	0.800
ANRL201610-8R2M	8.2	M	0.53	0.60	0.68	0.78	0.940
ANRL201610-100M	10	M	0.50	0.60	0.65	0.70	1.000

## Electrical Characteristics

## ● ANRL252010 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Max.
Units	μH	M=±20% N=±30%	A		A		Ω
Symbol	L		Irms		Isat		DCR
ANRL252010-R24□	0.24	M/N	2.75	3.00	3.60	4.40	0.034
ANRL252010-R33□	0.33	M/N	2.45	2.70	3.60	4.30	0.040
ANRL252010-R47□	0.47	M/N	2.40	2.60	2.80	3.20	0.044
ANRL252010-R68□	0.68	M/N	2.10	2.35	2.75	3.10	0.062
ANRL252010-1R0□	1	M/N	1.85	2.05	2.05	2.50	0.080
ANRL252010-1R5□	1.5	M/N	1.55	1.70	1.70	2.05	0.108
ANRL252010-2R2M	2.2	M	1.35	1.50	1.50	1.75	0.150
ANRL252010-3R3M	3.3	M	1.05	1.20	1.10	1.35	0.228
ANRL252010-4R7M	4.7	M	0.90	1.00	1.00	1.15	0.330
ANRL252010-5R6M	5.6	M	0.80	0.90	0.90	1.05	0.480
ANRL252010-6R8M	6.8	M	0.72	0.80	0.80	0.95	0.480
ANRL252010-8R2M	8.2	M	0.69	0.78	0.73	0.85	0.572
ANRL252010-100M	10	M	0.65	0.75	0.65	0.75	0.600
ANRL252010-120M	12	M	0.58	0.62	0.58	0.62	0.850
ANRL252010-150M	15	M	0.45	0.50	0.50	0.55	1.050
ANRL252010-220M	22	M	0.32	0.38	0.40	0.45	1.344

## ● ANRL252012 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Max.
Units	μH	M=±20% N=±30%	A		A		Ω
Symbol	L		Irms		Isat		DCR
ANRL252012-R24□	0.24	M/N	4.10	4.50	4.10	4.80	0.023
ANRL252012-R33□	0.33	M/N	3.35	3.70	4.00	4.70	0.031
ANRL252012-R47□	0.47	M/N	3.00	3.30	3.80	4.50	0.036
ANRL252012-R68□	0.68	M/N	2.30	2.50	3.00	3.30	0.047
ANRL252012-1R0□	1	M/N	2.30	2.60	2.25	2.50	0.060
ANRL252012-1R2□	1.2	M/N	2.00	2.20	2.20	2.50	0.078
ANRL252012-1R5□	1.5	M/N	1.80	2.00	2.00	2.35	0.090
ANRL252012-1R8□	1.8	M/N	1.75	1.90	1.95	2.20	0.108
ANRL252012-2R2M	2.2	M	1.75	1.90	1.75	1.90	0.108
ANRL252012-2R7M	2.7	M	1.40	1.50	1.30	1.60	0.156
ANRL252012-3R3M	3.3	M	1.40	1.50	1.20	1.35	0.156
ANRL252012-4R7M	4.7	M	1.10	1.20	1.10	1.20	0.228
ANRL252012-5R6M	5.6	M	1.00	1.15	1.00	1.10	0.330
ANRL252012-6R8M	6.8	M	0.95	1.05	0.90	1.10	0.360
ANRL252012-8R2M	8.2	M	0.80	0.90	0.80	0.92	0.522
ANRL252012-100M	10	M	0.78	0.86	0.70	0.85	0.522

## Electrical Characteristics

## ● ANRL252012 Series

Part Number	Inductance	Inductance Tolerance	Heat Rating Current		Saturation Current		DC Resistance
	@100kHz,1V		Max.	Typ.	Max.	Typ.	Max.
Units	$\mu\text{H}$	M=±20% N=±30%	A		A		$\Omega$
Symbol	L		I <sub>rms</sub>	I <sub>sat</sub>		DCR	
ANRL252012-150M	15	M	0.50	0.60	0.60	0.70	1.000
ANRL252012-220M	22	M	0.48	0.55	0.45	0.55	1.290
ANRL252012-330M	33	M	0.35	0.40	0.35	0.40	1.840
ANRL252012-470M	47	M	0.20	0.28	0.30	0.37	2.250

△1: All test data is referenced to 20°C ambient;

△2: Rated current: I<sub>sat</sub> or I<sub>rms</sub>, whichever is smaller;

△3: I<sub>rms</sub>: DC current that causes the temperature rise ( $\Delta T=40^\circ\text{C}$ ) from 20°C ambient.

**Note:**

This series product is not applies in automotive or related products. Otherwise, we will shall not bear than the resulting all the problems of quality and responsibility.

Please be sure to request approval specifications that provide further details of the products. Kindly not that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without APV approval.

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