

SMD shielded Power Inductors -WNRS Series



WNRS Series



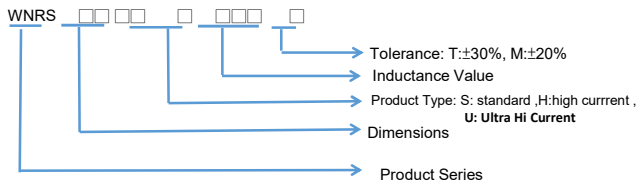
Description:

- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels
- Metallization on ferrite core results in excellent shock resistance and damage-free durability
- Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- 30% higher current rating than conventional inductors of equal size
- Takes up less PCB real estate and save more power

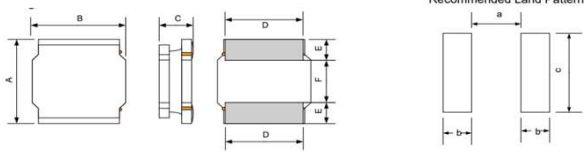
Applications:

- Smart phone, smart TV,
- Set top box, notebook
- Car navigation systems,
- Telecomm base stations
- VR, AR
- LED lightings

Product Identification



Dimensions-mm



Dimensions-mm

TYPE	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
WNRS6020S	6.0±0.3	6.0±0.3	2.0Max	4.9±0.3	1.55±0.3	2.9±0.3	2.8	1.7	5.7
WNRS6028S	6.0±0.3	6.0±0.3	2.8Max	4.9±0.3	1.55±0.3	2.9±0.3	2.8	1.7	5.7
WNRS6040S	6.0±0.3	6.0±0.3	4.0Max	4.9±0.3	1.55±0.3	2.9±0.3	2.8	1.7	5.7
WNRS6045S	6.0±0.3	6.0±0.3	4.5Max	4.9±0.3	1.55±0.3	2.9±0.3	2.8	1.7	5.7

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Electrical Characteristics

Part No.	Inductance	RDC		SRF	Isat		Irms	
	(μH)@100KHZ,1V	(Ω)Max.	(Ω)Typ.	(MHZ)Min.	(A)Max.	(A)Typ.	(A)Max.	(A)Typ.
WNRS6020SR50T	0.50±30%	0.018	0.014	120	4.50	6.00	4.00	5.00
WNRS6020SR68T	0.68±30%	0.022	0.017	115	6.55	7.80	3.80	4.80
WNRS6020SR82T	0.82±30%	0.022	0.017	110	5.30	6.30	3.80	4.80
WNRS6020S1R0T	1.0±30%	0.020	0.020	100	4.15	5.00	3.50	4.40
WNRS6020S1R2T	1.2±30%	0.029	0.022	88	5.90	7.00	3.20	4.00
WNRS6020S1R5T	1.5±30%	0.029	0.022	79	4.25	5.10	3.20	4.00
WNRS6020S1R8T	1.8±30%	0.036	0.028	68	4.85	5.80	2.75	3.50
WNRS6020S2R0T	2.0±30%	0.046	0.035	65	4.10	4.90	2.60	3.30
WNRS6020S2R2T	2.2±30%	0.036	0.028	61	3.75	4.50	2.75	3.50
WNRS6020S2R7T	2.7±30%	0.046	0.035	56	3.90	4.60	2.60	3.30
WNRS6020S3R3T	3.3±30%	0.046	0.035	51	3.15	3.70	2.60	3.30
WNRS6020S3R9T	3.9±30%	0.064	0.049	45	3.25	3.90	2.10	2.60
WNRS6020S4R3T	4.3±30%	0.064	0.049	44	2.70	3.20	2.10	2.60
WNRS6020S4R7T	4.7±30%	0.075	0.058	41	3.00	3.60	2.00	2.50
WNRS6020S5R6T	5.6±30%	0.075	0.058	36	2.40	2.90	1.90	2.40
WNRS6020S6R2T	6.2±30%	0.103	0.079	31	2.30	2.70	1.80	2.30
WNRS6020S6R8T	6.8±30%	0.103	0.079	31	2.20	2.60	1.80	2.30
WNRS6020S8R2T	8.2±30%	0.137	0.105	27	2.10	2.50	1.40	1.80
WNRS6020S100M	10±20%	0.137	0.105	27	1.75	2.10	1.40	1.80
WNRS6020S120M	12±20%	0.156	0.120	25	1.45	1.70	1.30	1.60
WNRS6020S150M	15±20%	0.189	0.145	21	1.20	1.40	1.20	1.50
WNRS6020S180M	18±20%	0.234	0.180	18	1.20	1.40	1.08	1.40
WNRS6020S220M	22±20%	0.265	0.204	16	1.05	1.20	1.00	1.30
WNRS6020S330M	33±20%	0.390	0.300	11	0.95	1.10	0.84	1.05
WNRS6020S470M	47±20%	0.559	0.430	10	0.70	0.90	0.80	0.90
WNRS6020S680M	68±20%	0.820	0.630	8.7	0.50	0.60	0.75	0.86
WNRS6020S101M	100±20%	1.200	1.000	7	0.64	0.84	0.50	0.58
WNRS6020S151M	150±20%	2.080	1.600	6	0.50	0.60	0.45	0.52
WNRS6020S221M	220±20%	3.461	2.662	4.7	0.45	0.55	0.33	0.38
WNRS6020S331M	330±20%	3.419	2.630	3	0.27	0.33	0.33	0.39

Notes:

1. tolerance K=±10% / M=±20% / T=±30%
2. All test data is referenced to 25°C ambient.
3. Operating temperature range -40°C ~ 125°C (Including self - temperature rise)
4. Rated current: Isat or Irms, whichever is smaller;
5. Isat: DC current at which the inductance drops approximate 30% from its value without current;
6. Irms: DC current that causes the temperature rise ($\Delta T = 40^\circ\text{C}$) from 20°C ambient.
7. Measure Equipment :
L : Agilent/ E4980 or HP4284A (under 1MHz), HP4285A (over 1MHz)
RDC : Chroma 16502
Isat : HP4284+42841A or WK3260B+WK3265B
8. Test Condition:
Temperature: 26±3°C
Humidity: <70% RH

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Curve:

