

## SMD shielded Power Inductors -WNRS Series



### WNRS Series



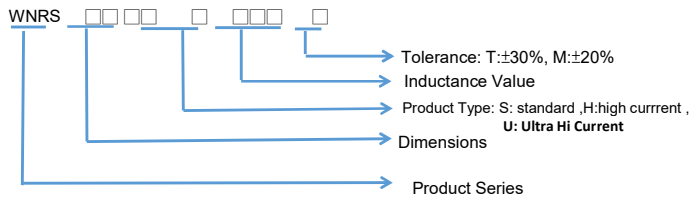
#### Description:

- 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

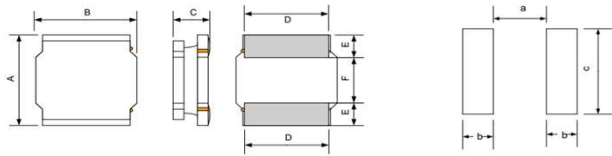
#### Applications:

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

#### Product Identification



#### Dimensions-mm



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TYPE	A	B	C	D	E	F	a Typ.	b Typ.	c Typ.
WNRS4010S	4.0±0.2	4.0±0.2	1.0Max	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7
WNRS4012S	4.0±0.2	4.0±0.2	1.2Max	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7
WNRS4018S	4.0±0.2	4.0±0.2	1.8Max	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7
WNRS4020S	4.0±0.2	4.0±0.2	2.0Max	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7
WNRS4026S	4.0±0.2	4.0±0.2	2.6Max	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7
WNRS4030S	4.0±0.2	4.0±0.2	3.0Max	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7

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### WNRS4010S SERIES

#### Electrical Characteristics

Part No.	Inductance	RDC		SRF	Isat		I <sub>rms</sub>	
	( $\mu\text{H}$ ) @100KHZ,1V	( $\Omega$ )Max.	( $\Omega$ )Typ.	(MHz)Min.	(A)Max.	(A)Typ.	(A)Max.	(A)Typ.
WNRS4010S1R0T	1.0 $\pm$ 30%	0.067	0.056	116	2.00	2.30	1.90	2.40
WNRS4010S1R5T	1.5 $\pm$ 30%	0.084	0.070	94	1.68	2.00	1.70	2.00
WNRS4010S2R2T	2.2 $\pm$ 20%	0.102	0.085	73	1.20	1.50	1.50	2.00
WNRS4010S3R3T	3.3 $\pm$ 20%	0.120	0.100	58	1.10	1.40	1.40	1.80
WNRS4010S4R7M	4.7 $\pm$ 20%	0.168	0.140	47	0.95	1.10	1.20	1.50
WNRS4010S6R8M	6.8 $\pm$ 20%	0.240	0.200	38	0.80	0.95	1.00	1.20
WNRS4010S100M	10 $\pm$ 20%	0.360	0.300	31	0.62	0.75	0.75	1.00
WNRS4010S150M	15 $\pm$ 20%	0.516	0.430	24	0.54	0.61	0.60	0.85
WNRS4010S220M	22 $\pm$ 20%	0.684	0.570	19	0.45	0.52	0.50	0.75

#### Notes:

1. tolerance K= $\pm$ 10% / M= $\pm$ 20% / T= $\pm$ 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 I<sub>rms</sub>, whichever is smaller;
5. Isat: DC current at which the inductance drops approximate 30% from its value without current;
6. I<sub>rms</sub>: 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 $\pm$ 3°C

Humidity: <70% RH

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#### Curve:

