

**NRSM Series**  
Wire Wound SMD Power Inductor  
Size 4012



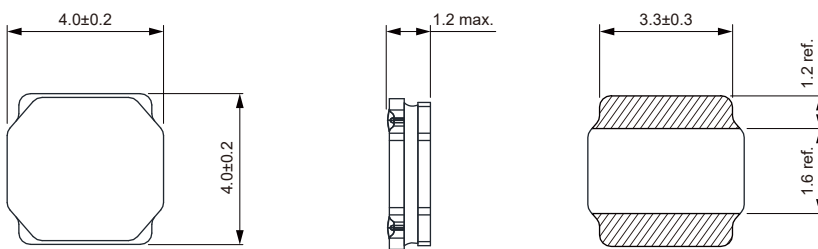
**FEATUERS**

- Magnetic resin for higher current and semi-magnetically shielded
- Operating temperature: -40 to +125 °C (including self-temperature rise)
- Quantity: 4500pcs

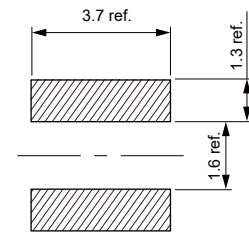
**APPLICATION**

- DC/DC converter
- LC filter

Dimensions: [mm]



Land Pattern: [mm]



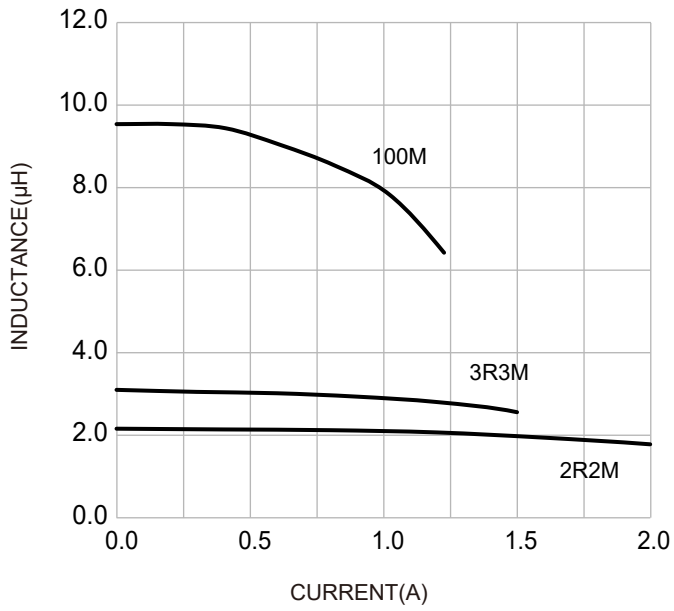
Electrical Properties:

Part No	Inductance @ 1MHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (Ω)	DC Resistance Max. (Ω)
NRSM4012S-R47M	0.47	±20%	4.30	3.80	8.20	7.20	0.033	0.041
NRSM4012S-R56M	0.56	±20%	3.80	3.20	7.00	6.00	0.040	0.050
NRSM4012S-R68M	0.68	±20%	3.80	3.25	6.20	5.20	0.042	0.055
NRSM4012S-1R0M	1.00	±20%	3.50	3.00	4.60	3.80	0.049	0.059
NRSM4012S-1R5M	1.50	±20%	3.20	2.80	4.50	3.80	0.060	0.075
NRSM4012S-2R2M	2.20	±20%	3.00	2.50	3.30	2.80	0.075	0.090
NRSM4012S-3R3M	3.30	±20%	2.50	2.00	3.30	2.80	0.106	0.130
NRSM4012S-4R7M	4.70	±20%	2.10	1.80	2.60	2.30	0.145	0.175
NRSM4012S-6R8M	6.80	±20%	1.75	1.50	2.20	1.60	0.190	0.230
NRSM4012S-8R2M	8.20	±20%	1.68	1.46	1.95	1.58	0.210	0.273
NRSM4012S-100M	10.0	±20%	1.00	0.85	1.85	1.55	0.300	0.360
NRSM4012S-220M	22.0	±20%	0.90	0.80	1.25	1.00	0.650	0.800

Saturation Current that will cause initial inductance to drop approximately 30%  
Temperature Rise Current: For max value, ΔT < 40 °C; For Typ value, ΔT is approximate 40 °C.

Typical Electrical Characteristics:

Inductance VS. Current Characteristics:



Temperature Rise VS. Current Characteristics:

