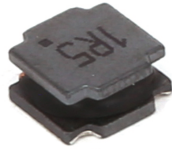


**NRSE Series**  
**SMD Shielded Tiny Power Inductor**  
**Size 4012**



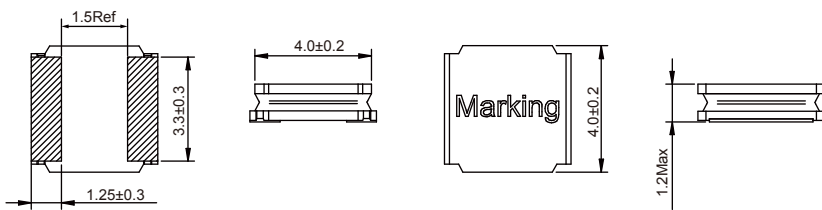
**CHARACTERISTICS**

- Magnetic resin for higher current and semi-magnetically shielded
- Different sizes from 2mm to 8mm in square shape
- Quantity: 4500pcs

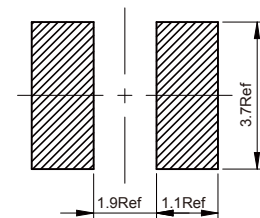
**APPLICATION**

- DC/DC converter
- LC filter

**Dimensions: [mm]**



**Land Pattern: [mm]**



**Electrical Properties:**

| Part No       | Inductance (μH) | Tolerance | Saturation current Max. (A) | Saturation current Typ. (A) | Temperature Rise Current Max. (A) | Temperature Rise Current Typ. (A) | DCR Max. (Ω) |
|---------------|-----------------|-----------|-----------------------------|-----------------------------|-----------------------------------|-----------------------------------|--------------|
| NRSE4012-R24N | 0.24            | ±30%      | 4.80                        | 5.60                        | 2.90                              | 3.30                              | 0.025        |
| NRSE4012-1R0N | 1.0             | ±30%      | 2.80                        | 3.00                        | 2.00                              | 2.30                              | 0.055        |
| NRSE4012-1R5N | 1.5             | ±30%      | 2.20                        | 2.35                        | 1.80                              | 2.00                              | 0.065        |
| NRSE4012-2R2M | 2.2             | ±20%      | 1.76                        | 2.00                        | 1.32                              | 1.90                              | 0.100        |
| NRSE4012-3R3M | 3.3             | ±20%      | 1.35                        | 1.65                        | 1.32                              | 1.90                              | 0.100        |
| NRSE4012-4R7M | 4.7             | ±20%      | 1.15                        | 1.50                        | 1.00                              | 1.40                              | 0.163        |
| NRSE4012-5R6M | 5.6             | ±20%      | 1.00                        | 1.60                        | 1.00                              | 1.20                              | 0.185        |
| NRSE4012-6R8M | 6.8             | ±20%      | 1.15                        | 1.30                        | 0.85                              | 1.10                              | 0.228        |
| NRSE4012-100M | 10              | ±20%      | 0.85                        | 0.95                        | 0.80                              | 1.00                              | 0.234        |
| NRSE4012-150M | 15              | ±20%      | 0.68                        | 0.80                        | 0.65                              | 0.80                              | 0.400        |
| NRSE4012-180M | 18              | ±20%      | 0.60                        | 0.75                        | 0.55                              | 0.80                              | 0.550        |
| NRSE4012-220M | 22              | ±20%      | 0.50                        | 0.70                        | 0.49                              | 0.75                              | 0.690        |
| NRSE4012-330M | 33              | ±20%      | 0.50                        | 0.60                        | 0.42                              | 0.52                              | 1.00         |
| NRSE4012-470M | 47              | ±20%      | 0.35                        | 0.45                        | 0.37                              | 0.50                              | 1.43         |

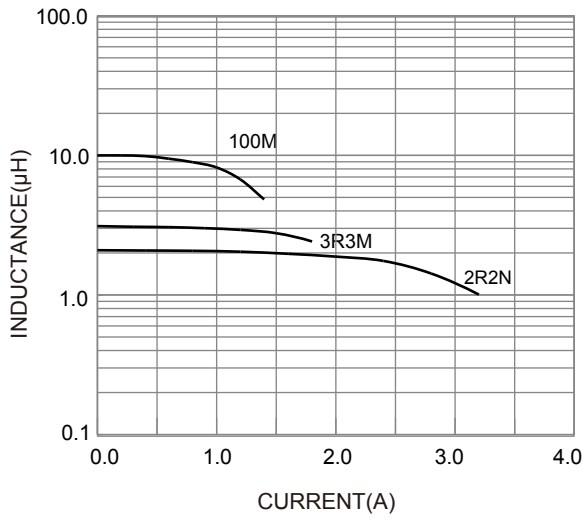
Operating temperature : -40°C ~ +125°C

Temperature rise current: the actual value of DC current when the temperature rise is ΔT40°C

Saturation Current that will cause initial inductance to drop approximately 30%

Typical Electrical Characteristics:

Inductance VS. Current Characteristics:



Temperture Rise VS. Current Characteristics:

