

**NRSE Series**  
**SMD Shielded Tiny Power Inductor**  
**Size 2512**



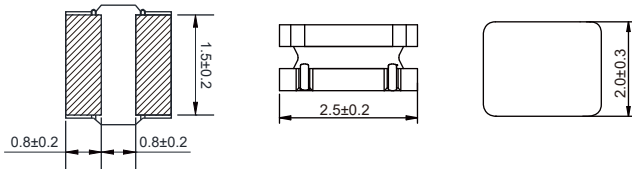
**CHARACTERISTICS**

- Magnetic resin for higher current and semi-magnetically shielded
- Quantity: 2000pcs

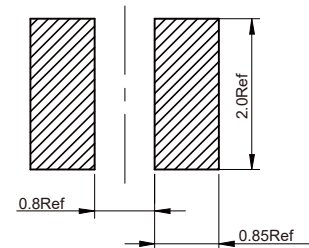
**APPLICATION**

- 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) |
|---------------|---------------------------|-----------|-----------------------------------|-----------------------------------|-----------------------------|-----------------------------|------------------------|------------------------|
| NRSE2512-R24M | 0.24                      | ±20%      | 4.50                              | 4.10                              | 4.80                        | 4.10                        | 0.019                  | 0.023                  |
| NRSE2512-R33M | 0.33                      | ±20%      | 3.70                              | 3.35                              | 4.70                        | 4.00                        | 0.026                  | 0.031                  |
| NRSE2512-R47M | 0.47                      | ±20%      | 3.30                              | 3.00                              | 4.50                        | 3.80                        | 0.031                  | 0.036                  |
| NRSE2512-R56M | 0.56                      | ±20%      | 2.50                              | 2.30                              | 4.20                        | 3.60                        | 0.038                  | 0.047                  |
| NRSE2512-R68M | 0.68                      | ±20%      | 2.50                              | 2.30                              | 3.30                        | 3.00                        | 0.038                  | 0.047                  |
| NRSE2512-1R0M | 1.00                      | ±20%      | 2.60                              | 2.30                              | 2.50                        | 2.25                        | 0.050                  | 0.060                  |
| NRSE2512-1R2M | 1.20                      | ±20%      | 2.20                              | 2.00                              | 2.50                        | 2.20                        | 0.065                  | 0.078                  |
| NRSE2512-1R5M | 1.50                      | ±20%      | 2.00                              | 1.80                              | 2.35                        | 2.00                        | 0.075                  | 0.090                  |
| NRSE2512-1R8M | 1.80                      | ±20%      | 1.90                              | 1.75                              | 2.20                        | 1.95                        | 0.093                  | 0.108                  |
| NRSE2512-2R2M | 2.20                      | ±20%      | 1.90                              | 1.75                              | 1.90                        | 1.75                        | 0.093                  | 0.108                  |
| NRSE2512-2R7M | 2.70                      | ±20%      | 1.50                              | 1.40                              | 1.60                        | 1.30                        | 0.130                  | 0.156                  |
| NRSE2512-3R3M | 3.30                      | ±20%      | 1.50                              | 1.40                              | 1.35                        | 1.20                        | 0.130                  | 0.156                  |
| NRSE2512-4R7M | 4.70                      | ±20%      | 1.20                              | 1.10                              | 1.20                        | 1.10                        | 0.190                  | 0.228                  |
| NRSE2512-5R6M | 5.60                      | ±20%      | 1.15                              | 1.00                              | 1.10                        | 1.00                        | 0.255                  | 0.330                  |
| NRSE2512-6R8M | 6.80                      | ±20%      | 1.05                              | 0.95                              | 1.10                        | 0.90                        | 0.300                  | 0.360                  |
| NRSE2512-100M | 10.0                      | ±20%      | 0.86                              | 0.78                              | 0.85                        | 0.70                        | 0.435                  | 0.522                  |
| NRSE2512-120M | 12.0                      | ±20%      | 0.78                              | 0.65                              | 0.80                        | 0.65                        | 0.600                  | 0.750                  |
| NRSE2512-150M | 15.0                      | ±20%      | 0.60                              | 0.50                              | 0.70                        | 0.60                        | 0.700                  | 1.000                  |
| NRSE2512-220M | 22.0                      | ±20%      | 0.55                              | 0.48                              | 0.55                        | 0.45                        | 1.000                  | 1.290                  |

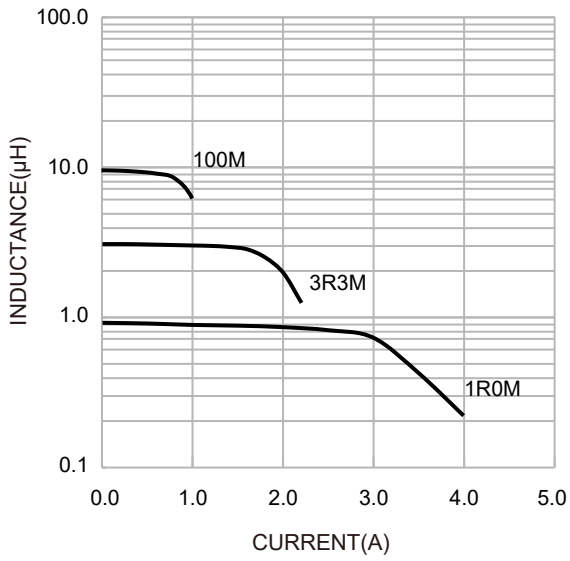
Operating temperature : -40 °C ~ +125 °C

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:

