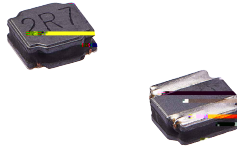


## NRSE Series

### SMD Shielded Tiny Power Inductor

### Size 5020



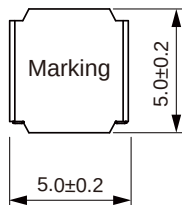
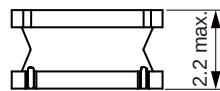
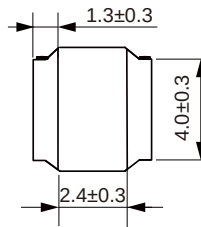
#### CHARACTERISTICS

- Magnetic resin for higher current and semi-magnetically shielded
- Quantity: 3000pcs

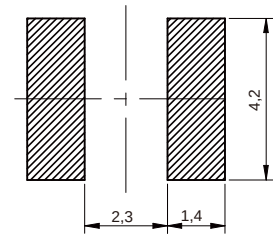
#### APPLICATION

- DC/DC converter
- LC filter

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

|               | Inductance<br>@100KHz/0.25V |      | current | Temperature Rise<br>Current | DCR<br>±30% |
|---------------|-----------------------------|------|---------|-----------------------------|-------------|
| NRSE5020-R22N | 0.22                        | ±30% | 8.00    | 5.00                        | 11          |
| NRSE5020-R24N | 0.24                        | ±30% | 8.00    | 5.00                        | 11          |
| NRSE5020-R33N | 0.33                        | ±30% | 7.50    | 4.60                        | 15          |
| NRSE5020-R47N | 0.47                        | ±30% | 6.15    | 4.60                        | 15          |
| NRSE5020-1R0N | 1.0                         | ±30% | 4.33    | 3.70                        | 20          |
| NRSE5020-1R2N | 1.2                         | ±30% | 4.20    | 3.50                        | 25          |
| NRSE5020-1R5N | 1.5                         | ±30% | 4.10    | 3.20                        | 26          |
| NRSE5020-1R8N | 1.8                         | ±30% | 4.00    | 3.00                        | 30          |
| NRSE5020-2R2N | 2.2                         | ±30% | 3.85    | 2.90                        | 38          |
| NRSE5020-2R7N | 2.7                         | ±30% | 3.50    | 2.40                        | 45          |
| NRSE5020-3R3N | 3.3                         | ±30% | 3.25    | 2.40                        | 46          |
| NRSE5020-3R6N | 3.6                         | ±30% | 2.90    | 2.30                        | 48          |
| NRSE5020-3R9N | 3.9                         | ±30% | 2.90    | 2.15                        | 50          |
| NRSE5020-4R7M | 4.7                         | ±20% | 2.40    | 2.05                        | 65          |
| NRSE5020-5R6M | 5.6                         | ±20% | 2.30    | 1.85                        | 72          |
| NRSE5020-6R8M | 6.8                         | ±20% | 2.10    | 1.70                        | 92          |
| NRSE5020-8R2M | 8.2                         | ±20% | 1.90    | 1.60                        | 100         |

|               | Inductance<br>@100KHz/0.25V |      | current | Temperature Rise<br>Current | DCR<br>±30% |
|---------------|-----------------------------|------|---------|-----------------------------|-------------|
| NRSE5020-100M | 10                          | ±20% | 1.80    | 1.50                        | 125         |
| NRSE5020-150M | 15                          | ±20% | 1.44    | 1.25                        | 180         |
| NRSE5020-220M | 22                          | ±20% | 1.18    | 1.05                        | 250         |
| NRSE5020-270M | 27                          | ±20% | 1.10    | 1.00                        | 300         |
| NRSE5020-330M | 33                          | ±20% | 0.97    | 0.83                        | 370         |
| NRSE5020-470M | 47                          | ±20% | 0.81    | 0.70                        | 560         |
| NRSE5020-680M | 68                          | ±20% | 0.70    | 0.53                        | 850         |
| NRSE5020-820M | 82                          | ±20% | 0.65    | 0.50                        | 950         |
| NRSE5020-101M | 100                         | ±20% | 0.57    | 0.43                        | 1100        |
| NRSE5020-151M | 150                         | ±20% | 0.41    | 0.40                        | 1500        |
| NRSE5020-221M | 220                         | ±20% | 0.35    | 0.30                        | 2230        |

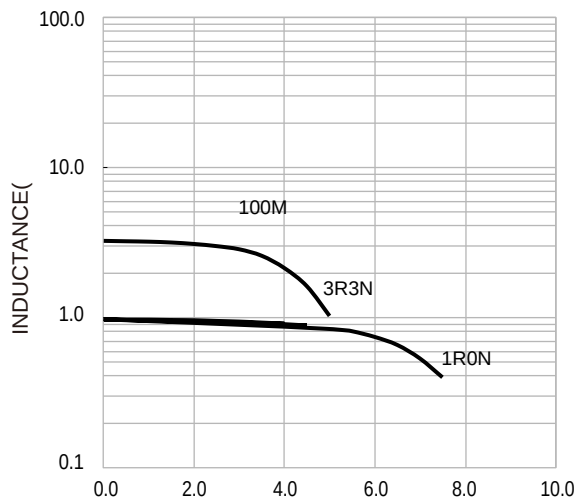
Operating temperature : -40℃ ~ +125℃

Temperature rise current: the actual value of DC current when the temperature rise is  $\Delta T 40^{\circ}\text{C}$

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

## Typical Electrical Characteristics:

Inductance VS. Current Characteristics:



Temperature Rise VS. Current Characteristics:

