

NRSC Series
SMD Shielded Tiny Power Inductor
Size 6045



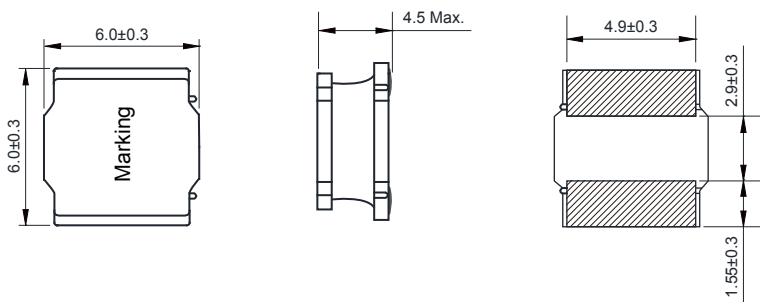
Features:

- 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
- Quantity: 2000 pcs

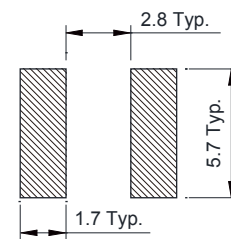
Application:

- LED Lighting
- Next-generation mobile devices with multifunction such as mobile TV and digital movie cameras
- Flat-screen TVs, blue-ray disc recorders, set top box
- Notebooks, desktop computers, servers, graphic cards cards
- Portable gaming devices, personal navigation systems, personal multimedia devices
- Automotive systems
- Telecomm base stations

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

| Part No | Inductance (μH) | Tolerance | Saturation current (A) | Temperature Rise Current (A) | DCR ±30% (Ω) | S.R.F Min. (MHz) |
|---------------|-----------------|-----------|------------------------|------------------------------|--------------|------------------|
| NRSC6045-R82N | 0.82 | ±30% | 10.40 | 5.90 | 0.008 | 140 |
| NRSC6045-1R0N | 1.0 | ±30% | 9.85 | 5.14 | 0.011 | 100 |
| NRSC6045-1R2N | 1.2 | ±30% | 8.35 | 5.40 | 0.010 | 100 |
| NRSC6045-1R5N | 1.5 | ±30% | 8.80 | 4.95 | 0.012 | 65 |
| NRSC6045-1R8N | 1.8 | ±30% | 7.60 | 4.95 | 0.012 | 74 |
| NRSC6045-2R2N | 2.2 | ±30% | 6.75 | 4.60 | 0.014 | 52 |
| NRSC6045-2R3N | 2.3 | ±30% | 6.00 | 3.50 | 0.021 | 60 |
| NRSC6045-2R7N | 2.7 | ±30% | 5.75 | 4.30 | 0.015 | 38 |
| NRSC6045-3R0N | 3.0 | ±30% | 5.60 | 3.80 | 0.020 | 35 |
| NRSC6045-3R3N | 3.3 | ±30% | 5.90 | 3.70 | 0.021 | 32 |
| NRSC6045-3R6N | 3.6 | ±30% | 5.25 | 3.70 | 0.021 | 28 |
| NRSC6045-4R3M | 4.3 | ±20% | 4.45 | 3.50 | 0.023 | 23 |
| NRSC6045-4R7M | 4.7 | ±20% | 4.97 | 3.30 | 0.026 | 24 |
| NRSC6045-5R1M | 5.1 | ±20% | 4.40 | 3.30 | 0.026 | 23 |

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|---------------|-----------------|-----------|------------------------|------------------------------|--------------|------------------|
| NRSC6045-5R6M | 5.6 | ±20% | 4.15 | 3.15 | 0.029 | 23 |
| NRSC6045-6R2M | 6.2 | ±20% | 4.43 | 3.00 | 0.031 | 26 |
| NRSC6045-6R8M | 6.8 | ±20% | 3.90 | 3.00 | 0.031 | 20 |
| NRSC6045-7R5M | 7.5 | ±20% | 3.50 | 2.90 | 0.034 | 18 |
| NRSC6045-8R2M | 8.2 | ±20% | 3.90 | 2.60 | 0.043 | 21 |
| NRSC6045-9R1M | 9.1 | ±20% | 3.35 | 2.60 | 0.043 | 17 |
| NRSC6045-100M | 10 | ±20% | 3.20 | 2.45 | 0.048 | 15 |
| NRSC6045-120M | 12 | ±20% | 2.80 | 2.20 | 0.058 | 13 |
| NRSC6045-150M | 15 | ±20% | 2.50 | 2.05 | 0.068 | 12 |
| NRSC6045-180M | 18 | ±20% | 2.20 | 1.85 | 0.081 | 10 |
| NRSC6045-220M | 22 | ±20% | 2.05 | 1.80 | 0.089 | 10 |
| NRSC6045-270M | 27 | ±20% | 1.90 | 1.65 | 0.102 | 9.2 |
| NRSC6045-300M | 30 | ±20% | 1.70 | 1.50 | 0.132 | 7.8 |
| NRSC6045-330M | 33 | ±20% | 1.65 | 1.45 | 0.137 | 7.8 |
| NRSC6045-360M | 36 | ±20% | 1.62 | 1.40 | 0.173 | 7.8 |
| NRSC6045-390M | 39 | ±20% | 1.50 | 1.25 | 0.180 | 7.8 |
| NRSC6045-430M | 43 | ±20% | 1.63 | 1.20 | 0.200 | 7.7 |
| NRSC6045-470M | 47 | ±20% | 1.40 | 1.20 | 0.200 | 6.4 |
| NRSC6045-510M | 51 | ±20% | 1.35 | 1.15 | 0.207 | 6.4 |
| NRSC6045-560M | 56 | ±20% | 1.30 | 1.10 | 0.221 | 6.4 |
| NRSC6045-620M | 62 | ±20% | 1.25 | 1.10 | 0.235 | 6.4 |
| NRSC6045-680M | 68 | ±20% | 1.20 | 1.00 | 0.289 | 6.4 |
| NRSC6045-750M | 75 | ±20% | 1.15 | 0.95 | 0.305 | 5.0 |
| NRSC6045-820M | 82 | ±20% | 1.05 | 0.90 | 0.341 | 4.9 |
| NRSC6045-910M | 91 | ±20% | 1.00 | 0.85 | 0.359 | 4.9 |
| NRSC6045-101M | 100 | ±20% | 0.95 | 0.80 | 0.433 | 4.2 |
| NRSC6045-121M | 120 | ±20% | 0.85 | 0.77 | 0.484 | 4.2 |
| NRSC6045-151M | 150 | ±20% | 0.80 | 0.70 | 0.580 | 4.2 |
| NRSC6045-221M | 220 | ±20% | 0.70 | 0.59 | 0.834 | 3.5 |
| NRSC6045-331M | 330 | ±20% | 0.57 | 0.57 | 1.270 | 2.8 |

Inductance tested at 100kHz, 1Vrms.

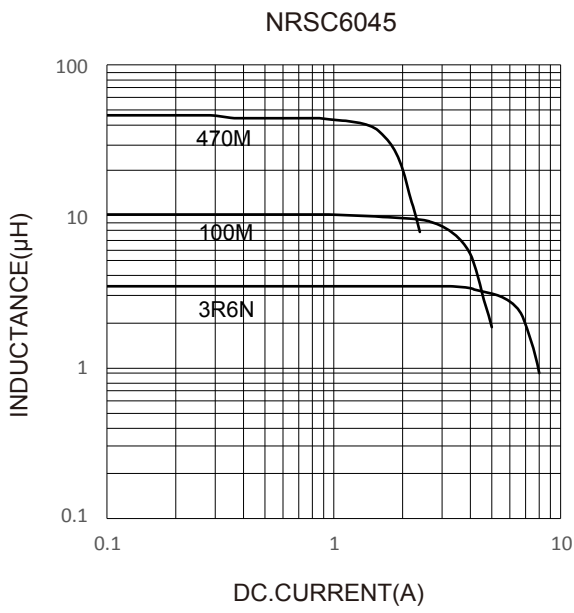
Operating temperature : -40 °C ~ +125 °C

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

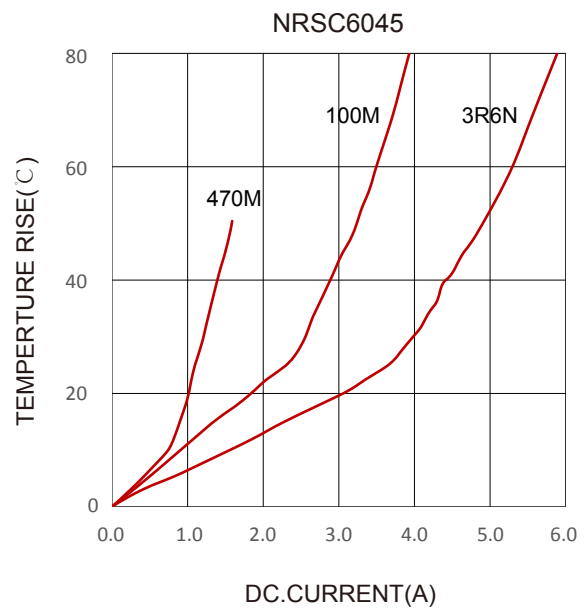
Saturation Current that will cause initial inductance to drop approximately 30%

Typical Electrical Characteristics:

Inductance VS. DC.Current Characteristics:



Temperture Rise VS. DC.Current Characteristics:



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