

**NRSC Series**  
**SMD Shielded Tiny Power Inductor**  
**Size 6045**



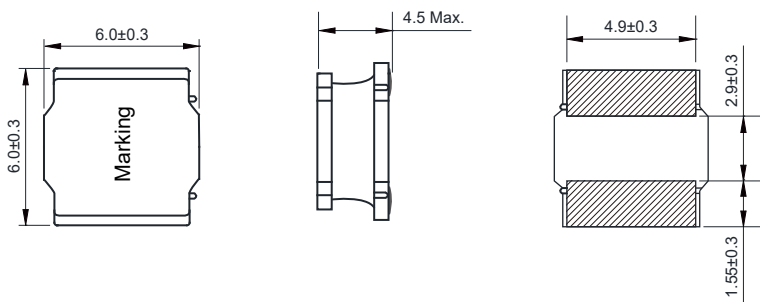
**Features:**

- 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

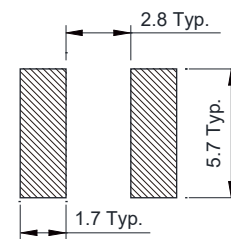
**Application:**

- 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

Part No	Inductance (μH)	Tolerance	Saturation current (A)	Temperature Rise Current (A)	DCR ±30% (Ω)	S.R.F Min. (MHz)
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.

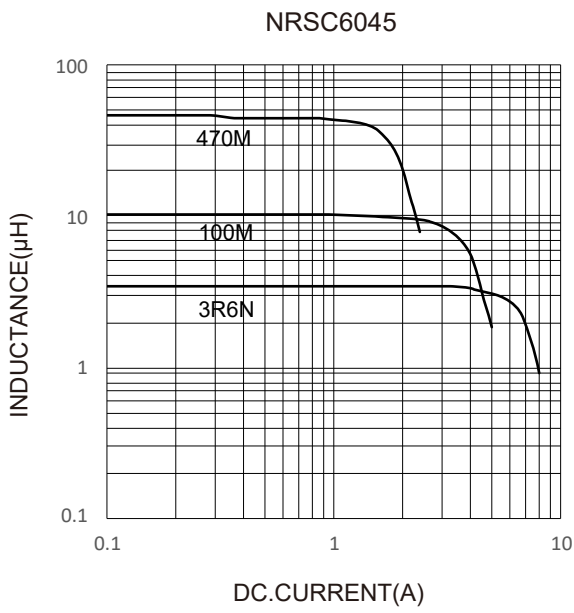
Operating temperature : -40 °C ~ +125 °C

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:

