

## NRSC Series

### SMD Shielded Tiny Power Inductor Size 4020



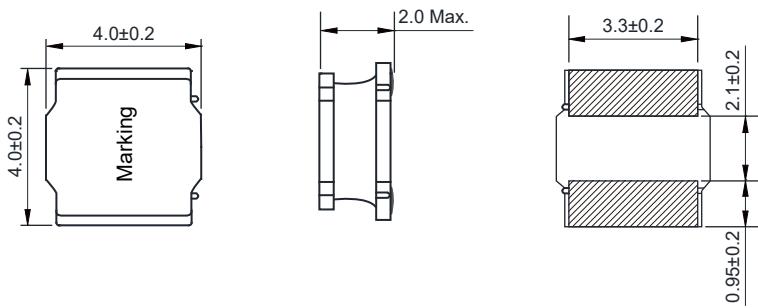
#### Features:

- 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

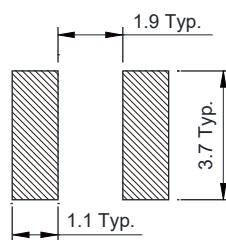
#### Application:

- 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
- Portable gaming devices, personal navigation systems, personal multimedia devices
- Automotive systems
- Telecomm base stations

#### Dimensions: [mm]



#### Land Pattern: [mm]



#### Electrical Properties:

Part No	Inductance ( $\mu$ H)	Tolerance	Saturation current (A)	Temperature Rise Current (A)	DCR $\pm 30\%$ ( $\Omega$ )	S.R.F Min. (MHz)
NRSC4020-1R0N	1.0	$\pm 30\%$	4.78	2.15	0.029	75
NRSC4020-1R2N	1.2	$\pm 30\%$	5.10	2.15	0.029	72
NRSC4020-1R5N	1.5	$\pm 30\%$	4.45	1.98	0.035	71
NRSC4020-2R2N	2.2	$\pm 30\%$	3.40	1.85	0.040	49
NRSC4020-3R3M	3.3	$\pm 20\%$	3.20	1.40	0.070	44
NRSC4020-3R6M	3.6	$\pm 20\%$	2.80	1.54	0.055	49
NRSC4020-4R7M	4.7	$\pm 20\%$	2.35	1.34	0.075	42
NRSC4020-5R1M	5.1	$\pm 20\%$	2.30	1.27	0.085	42
NRSC4020-5R6M	5.6	$\pm 20\%$	2.20	1.22	0.090	30
NRSC4020-6R2M	6.2	$\pm 20\%$	2.15	1.08	0.115	36
NRSC4020-6R8M	6.8	$\pm 20\%$	2.20	1.04	0.125	33
NRSC4020-7R5M	7.5	$\pm 20\%$	1.85	1.08	0.115	30
NRSC4020-8R2M	8.2	$\pm 20\%$	1.75	1.04	0.125	27

Part No	Inductance ( $\mu\text{H}$ )	Tolerance	Saturation current (A)	Temperature Rise Current (A)	DCR $\pm 30\%$ ( $\Omega$ )	S.R.F Min. (MHz)
NRSC4020-100M	10	$\pm 20\%$	1.60	0.90	0.165	26
NRSC4020-120M	12	$\pm 20\%$	1.50	0.88	0.175	26
NRSC4020-150M	15	$\pm 20\%$	1.35	0.77	0.230	24
NRSC4020-220M	22	$\pm 20\%$	1.05	0.62	0.350	15
NRSC4020-270M	27	$\pm 20\%$	1.02	0.50	0.545	14
NRSC4020-330M	33	$\pm 20\%$	0.85	0.49	0.550	11
NRSC4020-390M	39	$\pm 20\%$	0.82	0.46	0.650	11
NRSC4020-430M	43	$\pm 20\%$	0.77	0.45	0.660	10
NRSC4020-470M	47	$\pm 20\%$	0.74	0.44	0.710	10
NRSC4020-510M	51	$\pm 20\%$	0.70	0.42	0.750	10
NRSC4020-560M	56	$\pm 20\%$	0.66	0.41	0.800	10
NRSC4020-620M	62	$\pm 20\%$	0.65	0.39	0.900	9.6
NRSC4020-680M	68	$\pm 20\%$	0.61	0.36	1.060	7.7
NRSC4020-750M	75	$\pm 20\%$	0.70	0.35	1.160	7.7
NRSC4020-820M	82	$\pm 20\%$	0.50	0.34	1.170	7.2
NRSC4020-101M	100	$\pm 20\%$	0.48	0.31	1.550	6.3

Inductance tested at 100kHz, 1Vrms.

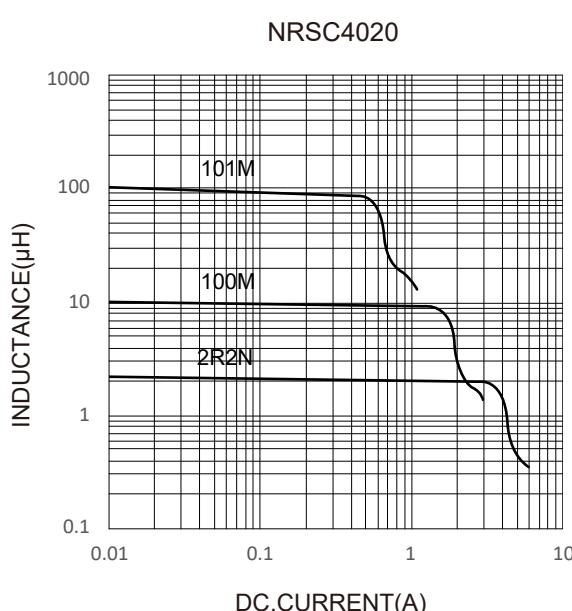
Operating temperature : -40°C ~ +125°C

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:



Temperature Rise VS. DC.Current Characteristics:

