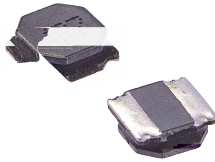


# NRSA Series

## SMD Power Inductors For Automotive

### Size 5020



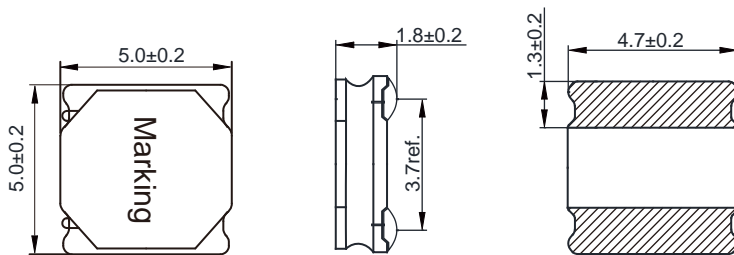
#### FEATURES

- Magnetic shield type wound inductor for power circuits using a ferrite magnetic material
- High magnetic shield construction and compatible with high-density mounting
- Larger current and lower R<sub>dc</sub> were achieved by optimizing the ferrite core figure.
- Operating temperature: -55 to +125°C (including self-temperature rise)
- AEC-Q200 qualified
- Quantity: 2500pcs

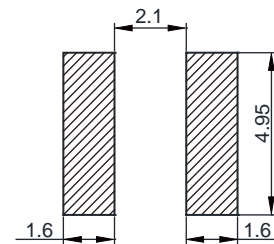
#### APPLICATION

- Car navigation, car stereo and car accessories only

Dimensions: [mm]



Land Pattern: [mm]



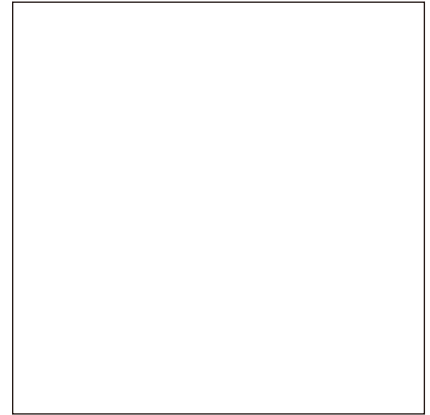
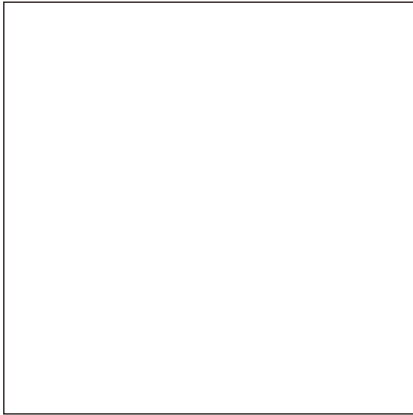
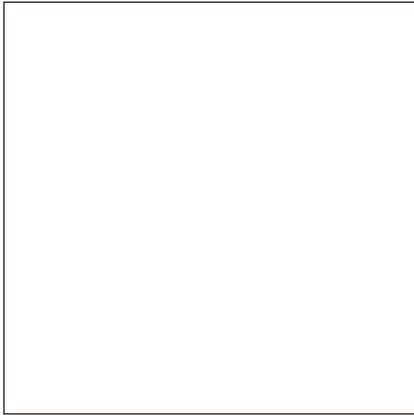
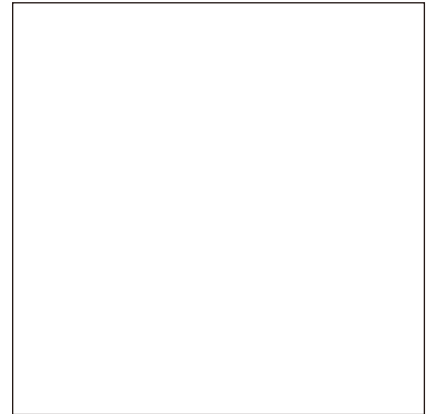
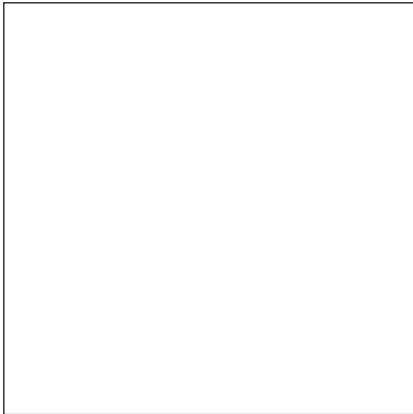
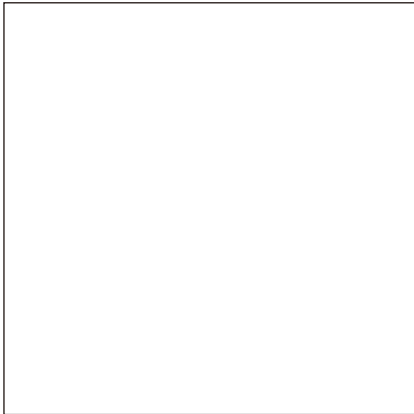
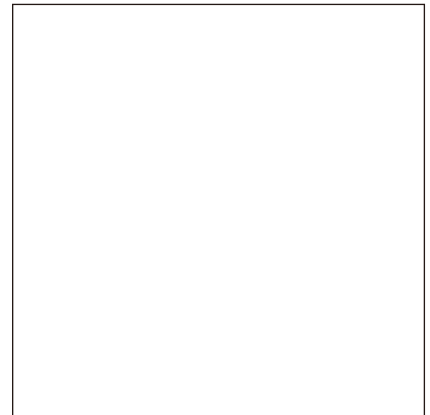
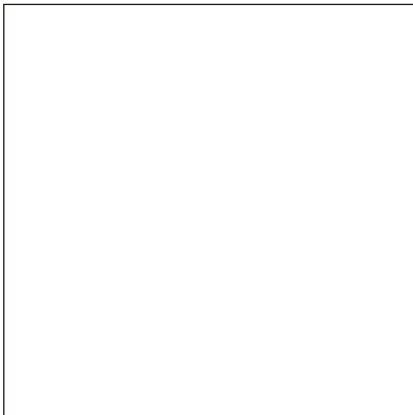
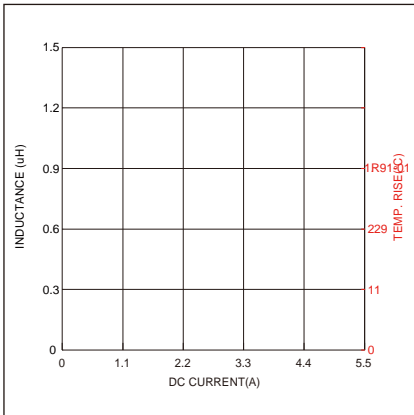
Electrical Properties:

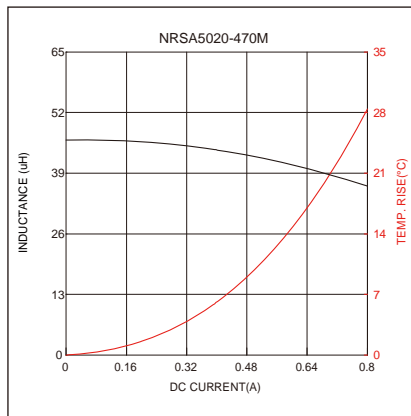
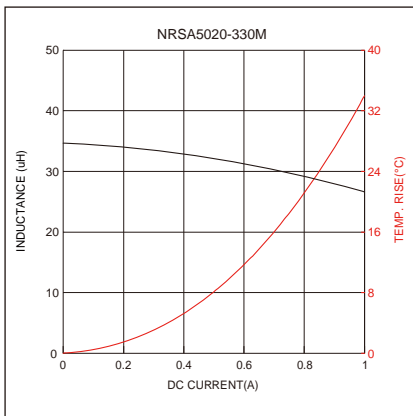
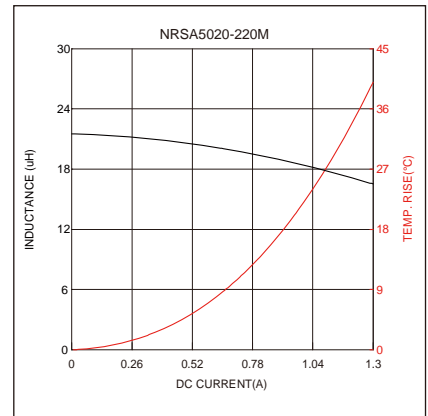
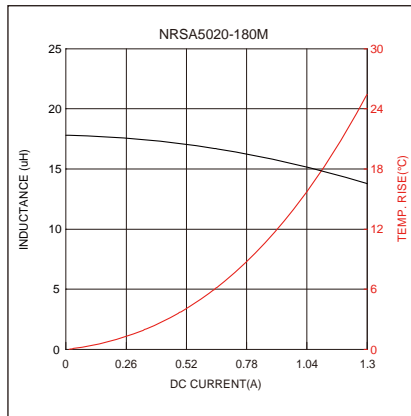
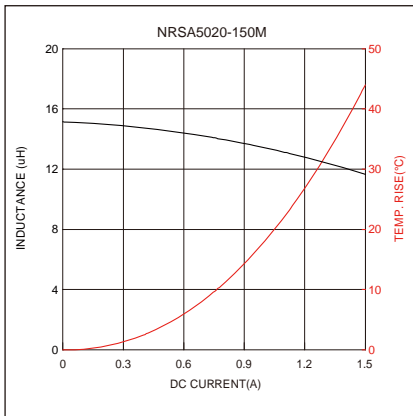
Part No	L@100KHz/1V (μH)	Tolerance	I <sub>SAT</sub> Typ. (A)	I <sub>R</sub> Typ. (A)	R <sub>DC</sub> ±20% (mΩ)
NRSA5020-1R0N	1.0	±30%	5.00	4.10	20
NRSA5020-1R2N	1.2	±30%	4.80	3.80	20
NRSA5020-1R5N	1.5	±30%	4.50	3.50	25
NRSA5020-2R2M	2.2	±20%	4.10	3.30	32
NRSA5020-2R7M	2.7	±20%	3.80	3.00	38
NRSA5020-3R3M	3.3	±20%	3.50	2.80	43
NRSA5020-4R7M	4.7	±20%	2.70	2.40	60
NRSA5020-5R6M	5.6	±20%	2.40	2.10	69
NRSA5020-6R8M	6.8	±20%	2.10	1.90	90
NRSA5020-8R2M	8.2	±20%	1.90	1.75	98
NRSA5020-100M	10	±20%	1.70	1.60	110
NRSA5020-120M	12	±20%	1.40	1.40	135
NRSA5020-150M	15	±20%	1.30	1.25	165
NRSA5020-180M	18	±20%	1.20	1.17	190
NRSA5020-220M	22	±20%	1.10	1.10	225
NRSA5020-330M	33	±20%	0.80	0.80	335
NRSA5020-470M	47	±20%	0.70	0.70	460

I<sub>R</sub> will cause the coil temperature rise approximately t40C

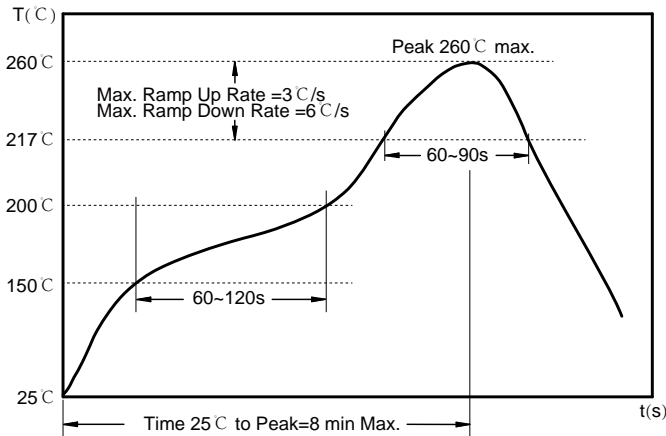
I<sub>SAT</sub> will cause L to drop approximately 30%.

# Typical Electrical Characteristics:





## Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.

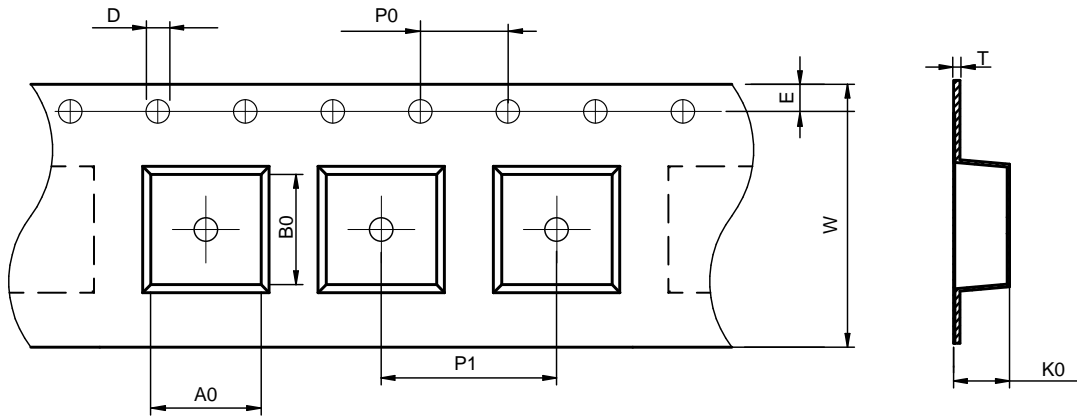
Allowed time above 217°C: 60~90 sec.

Max temperature: 260°C.

Allowed Reflow time: 2x max.

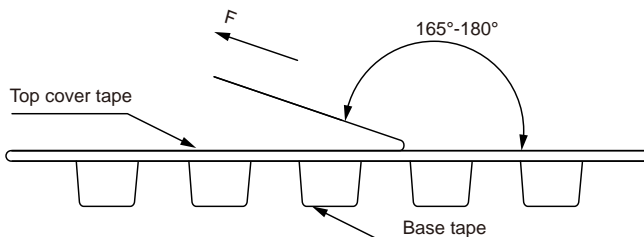
## Packaging Information:

### Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
NRSA5020	5.3±0.1	5.3±0.1	1.5±0.1	4.0±0.1	8.0±0.1	12.0±0.3	2.3±0.1	1.75±0.1	0.35±0.05

### Peel force of top cover tape:

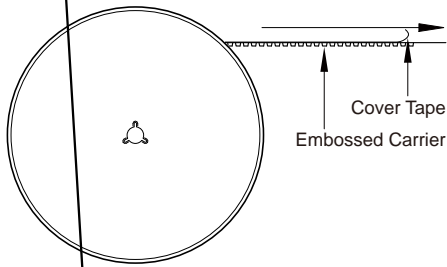


The peel force of top cover tape shall be between 0.3 to 1.17 N

### Product Marking:

Marking	Printing (Inductance)
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Reel Dimension: [mm]



Packaging Quantity: