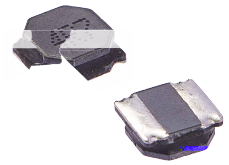
NRSA Series

SMD Power Inductors For Automotive

Size 5020



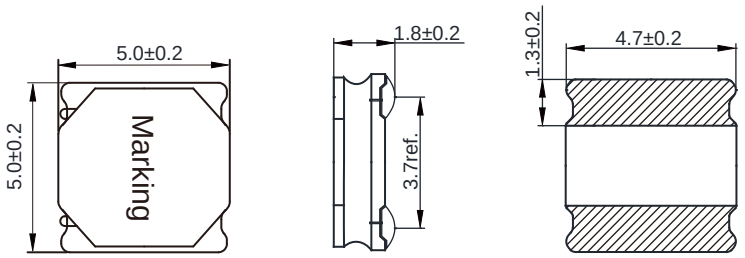
FEATURES

- Magne c shield type wound inductor for power circuits using a ferrite magne c material
- High magne c shield construc on and compa ble with high-density moun ng.
- Larger current and lower Rdc were achieved by op mizing the ferrite core figure.
- Opera ng temperature: –55 to +125°C(including self-temperature rise)
- AEC-Q200 qualified
- Quan ty: 2500pcs

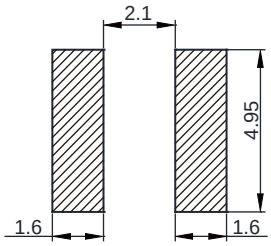
APPLICATION

- Car naviga on, car stereo and car accessories only

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

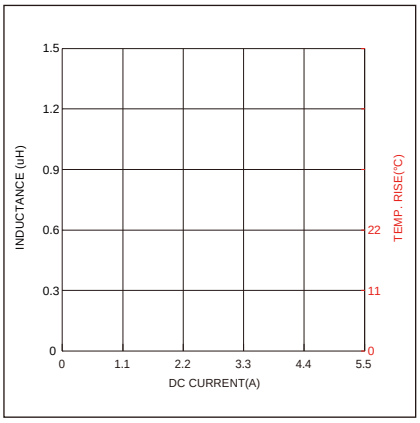
Part No	L@100KHz/1V (μH)	Tolerance	I_{SAT} Typ. (A)	I_R Typ. (A)	R_{DC} ±20% (mΩ)
A5020-1R0N	1.0	±30%	5.00	4.10	20
A5020-1R2N	1.2	±30%	4.80	3.80	20
A5020-1R5N	1.5	±30%	4.50	3.50	25
A5020-2R2M	2.2	±20%	4.10	3.30	32
A5020-2R7M	2.7	±20%	3.80	3.00	38
A5020-3R3M	3.3	±20%	3.50	2.80	
A5020-4R7M	4.7	±20%	2.70	2.40	60
A5020-5R6M	5.6	±20%	2.40	2.10	69
A5020-6R8M	6.8	±20%	2.10	1.90	90
A5020-8R2M	8.2	±20%	1.90	1.75	98
A5020-100M	10	±20%	1.70	1.60	110
A5020-120M	12	±20%	1.40	1.40	135
A5020-150M	15	±20%	1.30	1.25	165
A5020-180M	18	±20%	1.20	1.17	190
A5020-220M	22	±20%	1.10	1.10	225
A5020-330M		±20%	0.80	0.80	335
A5020-470M	47	±20%	0.70	0.70	460

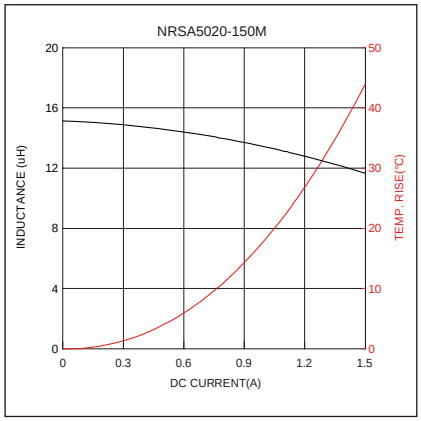
will cause the coil tempe tu e rise app xim tely Δt40℃

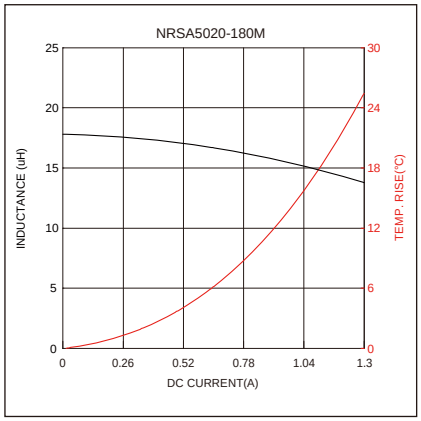
will cause L to d op app xim tely 30% .

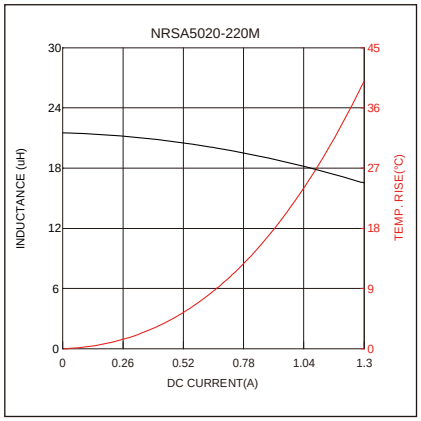
KOHER Electronics
F9, No. 4188, Huaning Rd, Minhang District, Shanghai
021-34753361 Contact@kohergroup.com

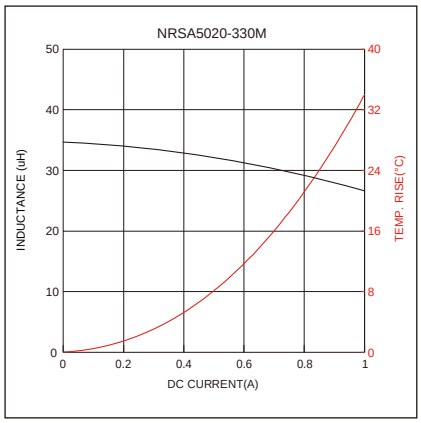
Typical Electrical Characteristics:

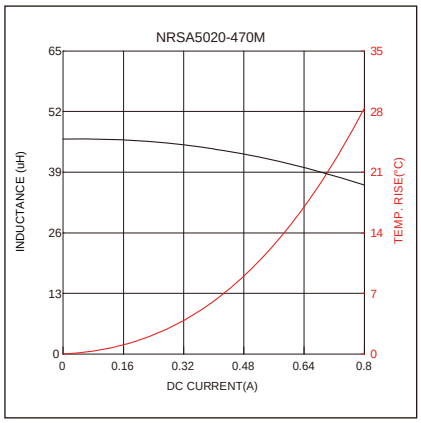



NRSA5020-150M
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
4
8
12
16
20
0
10
20
30
40
50
0
0.3
0.6
0.9
1.2
1.5

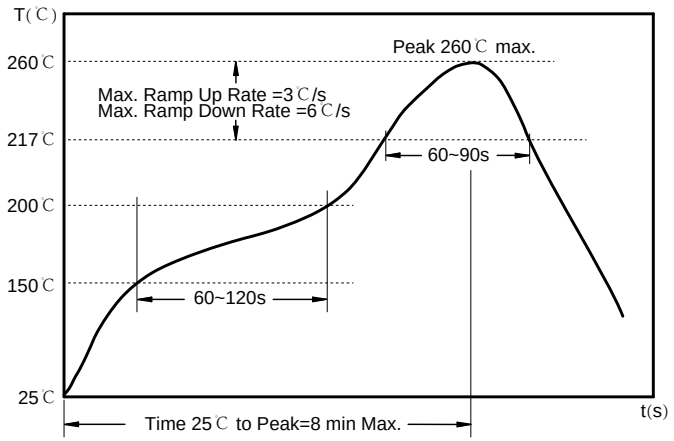

NRSA5020-180M
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
5
10
15
20
25
0
6
12
18
24
30
0
0.26
0.52
0.78
1.04
1.3


NRSA5020-220M
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
6
12
18
24
30
0
9
18
27
36
45
0
0.26
0.52
0.78
1.04
1.3


NRSA5020-330M
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
10
20
30
40
50
0
8
16
24
32
40
0
0.2
0.4
0.6
0.8
1


NRSA5020-470M
INDUCTANCE (uH)
TEMP. RISE(°C)
DC CURRENT(A)
0
13
26
39
52
65
0
7
14
21
28
35
0
0.16
0.32
0.48
0.64
0.8

Soldering Reflow:



Preheat condition: 150 ~200℃/ 60~120 sec.

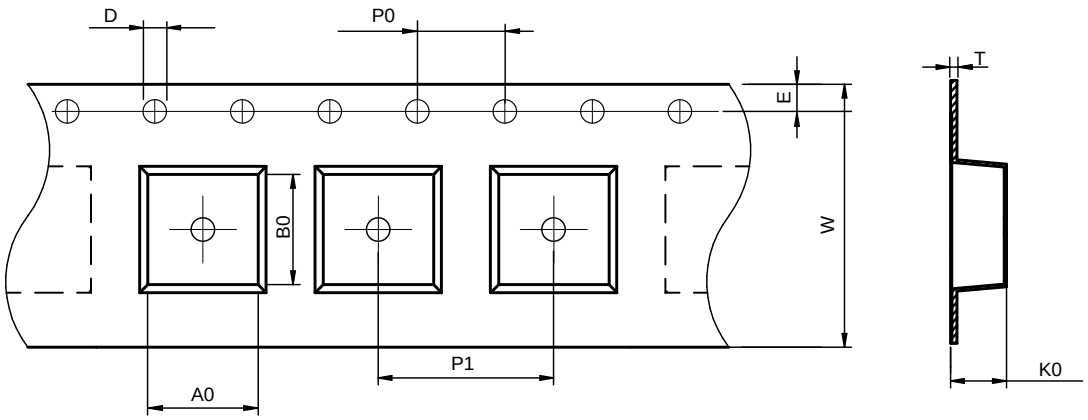
Allowed time above 217℃: 60~90 sec.

Max temperature: 260℃.

Allowed Reflow time: 2x max.

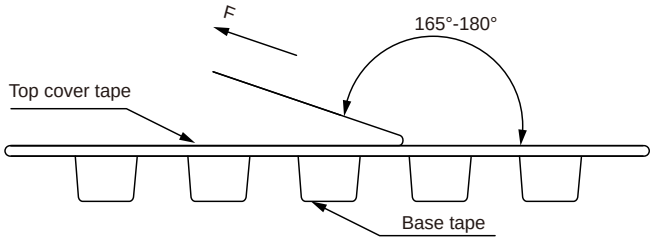
Packaging Information:

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:

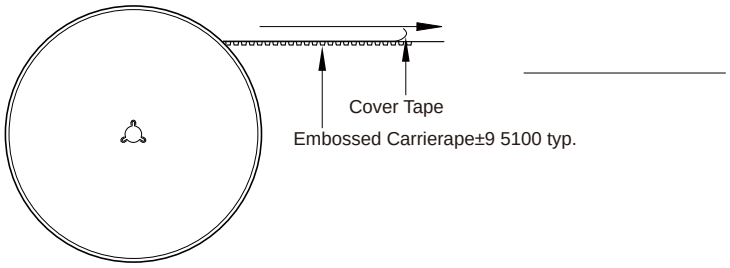


The peel force of top cover tape shall be between 0.3 to 1.17 N

Product Marking:

Marking	Printing (Inductance)

Reel Dimension：[mm]



Packaging Quantity: