MDSA Series

SMD Low Profile High Current Molded Inductor

Size 5030

FEATURES

- Shielded construc on
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construc on.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Opera ng temperature: -55 to +155 °C(including self-temperature rise)
- Quan ty: 2000PCS

APPLICATION

- Noise filter for various drive circuitry requiring high temp.
  f ł (mм)3.95 15.9
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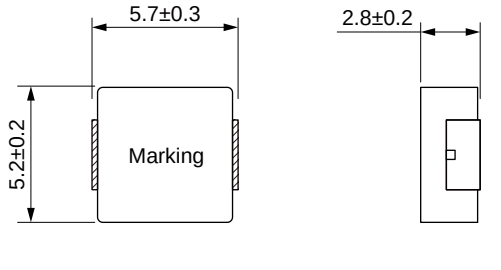
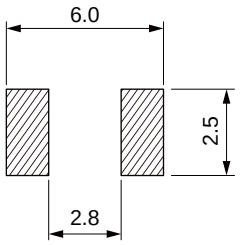
Dimensions: [mm]



Land Pattern: [mm]

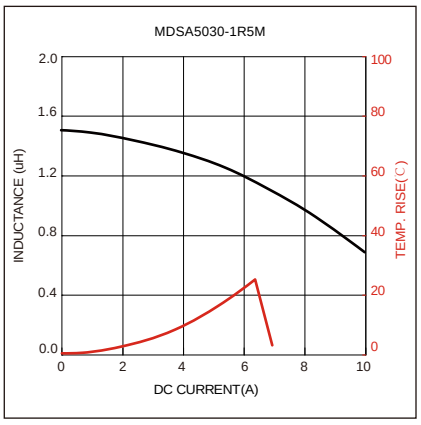


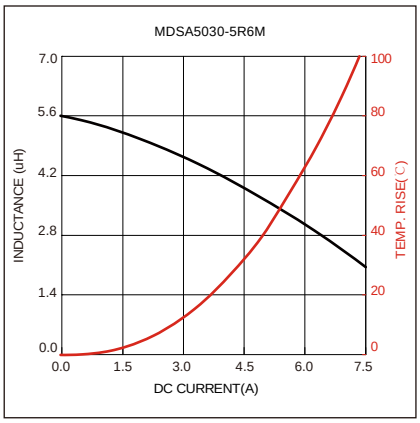
Electrical Properties:

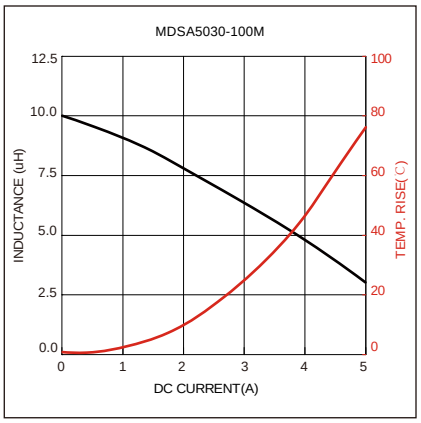
Part No	Inductance @100KHz/1V			Temperature Rise Current Max.	Current Typ.	Current Max.		
MDSA5030-R20M	0.20			12.5	20.0	15.4		
MDSA5030-R47M	0.47			11.6	10.0	8.7		
MDSA5030-R68M	0.68			10.6	9.00	7.7		
MDSA5030-R82M	0.82			8.7	8.80	7.4		
MDSA5030-1R0M	1.00			7.7	8.50	7.2		
MDSA5030-1R5M	1.50			6.8	7.50	6.3		
MDSA5030-2R2M	2.20			6.3	6.50	5.6		
MDSA5030-3R3M	3.30			5.6	6.00	5.1		
MDSA5030-4R7M	4.70			4.6	5.30	4.4		

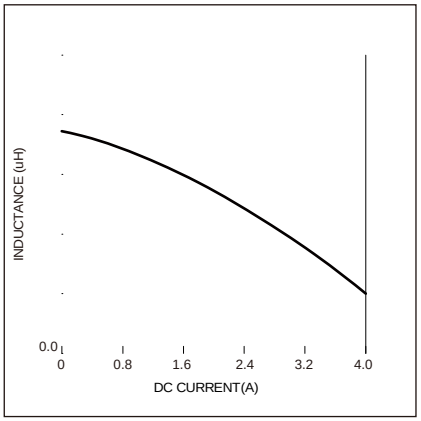
Saturation Current will cause L to drop approximately 30%
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

Typical Electrical Characteristics:




MDSA5030-5R6M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
7.0
5.6
4.2
2.8
1.4
0.0
100
80
60
40
20
0
0.0
1.5
3.0
4.5
6.0
7.5

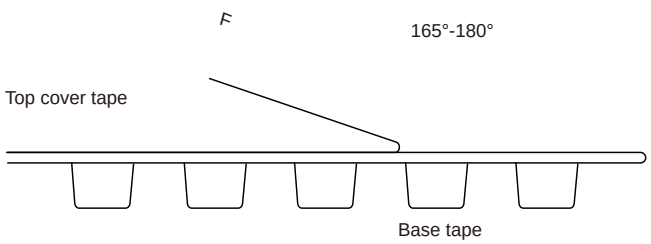

MDSA5030-100M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
12.5
10.0
7.5
5.0
2.5
0.0
100
80
60
40
20
0
0
1
2
3
4
5


INDUCTANCE (uH)
DC CURRENT(A)
0.0
0
0.8
1.6
2.4
3.2
4.0

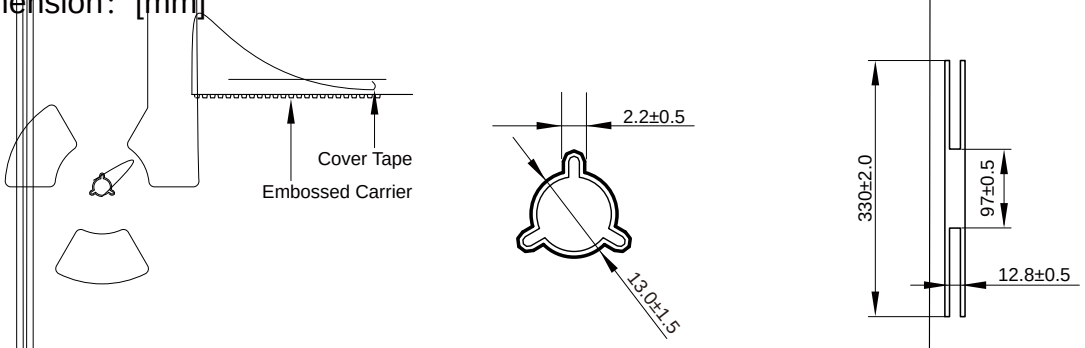
Packaging Information:

Tape Dimension：

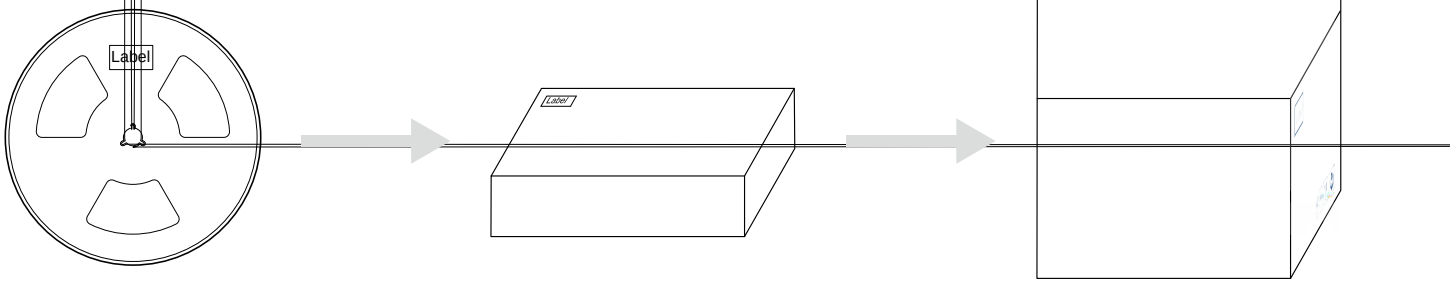
Peel force of top cover tape:



Reel Dimension：[mm]



Packaging Quantity:



0 . . . Naq-Pccj　　1 Pccj -G I I cp ` mv& 4 . . . Naq'　　1 G I I cp ` mv-A_prm I ` mv& / 6 I Naq'

Cautions and Warnings:

Storage Conditions：

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max).If the storage period elapses, the soldering of the terminal electrodes may deteriorate.The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components.The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does.As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.