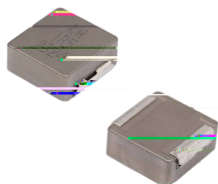


MDSA Series

SMD Low Profile High Current Molded Inductor

Size 1870



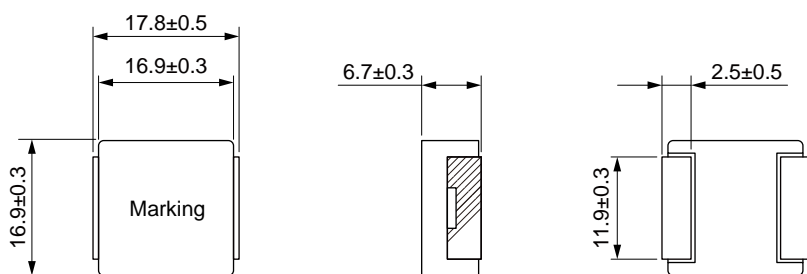
FEATURES

- Shielded construction
- 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 construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C(including self-temperature rise)
- Quantity: 200PCS

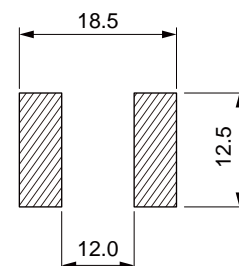
APPLICATION

- Noise filter for various drive circuitry requiring high temperature operation and peak current handling capability
- Boost-Converter
- Buck-Converter DC/DC

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

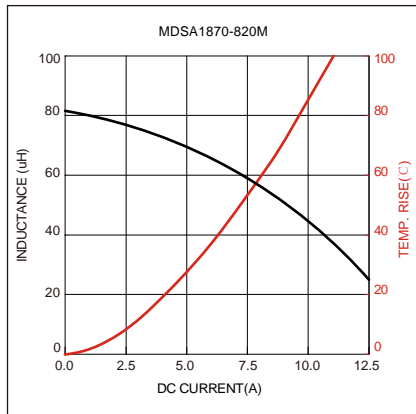
Part Number	DCR [mΩ]	Inductance Error [%]	Isat [A]	Isat [A]	DCR [mΩ]	Isat [A]
MDSA1870-1R0M	1.00	±20%	45.0	48.0	1.20	1.40
MDSA1870-1R5M	1.50	±20%	38.0	45.0	1.60	1.90
MDSA1870-2R2M	2.20	±20%	31.0	34.0	2.00	2.50
MDSA1870-3R3M	3.30	±20%	29.0	31.0	3.00	3.80
MDSA1870-4R7M	4.70	±20%	27.0	28.0	4.00	5.00
MDSA1870-6R8M	6.80	±20%	23.0	24.0	6.50	7.80
MDSA1870-100M	10.0	±20%	20.0	21.0	10.0	11.5
MDSA1870-150M	15.0	±20%	15.0	15.0	13.5	16.5
MDSA1870-220M	22.0	±20%	13.0	13.0	21.5	25.0
MDSA1870-330M	33.0	±20%	11.5	11.5	33.0	38.0
MDSA1870-470M	47.0	±20%	9.0	9.0	41.0	48.0
MDSA1870-680M	68.0	±20%	7.8	8.1	68.0	78.0
MDSA1870-820M	82.0	±20%	6.3	7.8	71.0	85.0

Saturation Current will cause L to drop approximately 30%

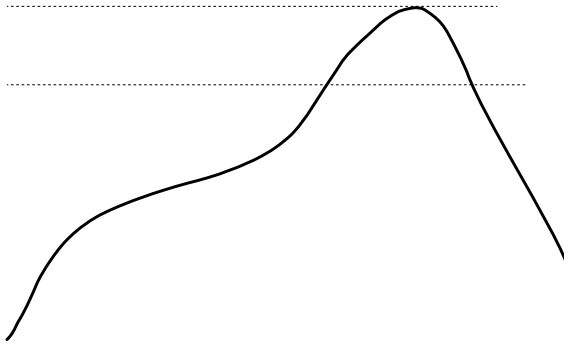
Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^{\circ}\text{C}$

Typical Electrical Characteristics:

Typical Electrical Characteristics:



Soldering Reflow:



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

Allowed time above 217°C: 60~90 sec.

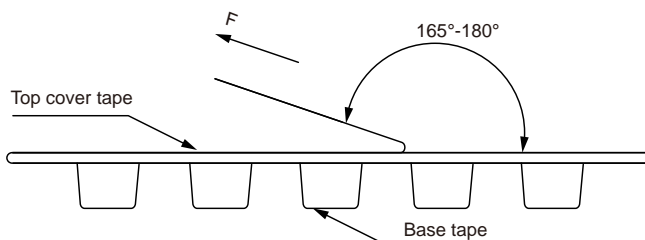
Max temperature: 260°C.

Allowed Reflow time: 2x max.

Packaging Information:

Tape Dimension :

Peel force of top cover tape:



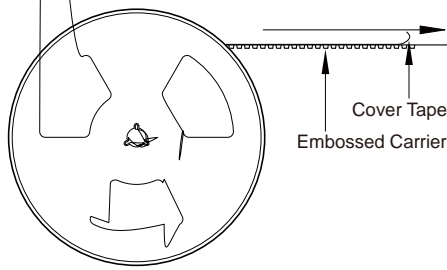
The peel force of top cover tape shall be between 0.1 to 1.3 N

Product Marking:

Marking	KH+Printing (Inductance)
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Reel Dimension: [mm]



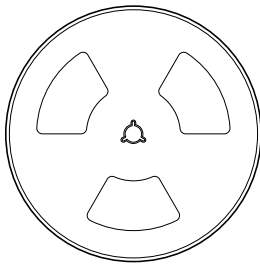
2.2±0.5

330±2.0

97±0.5

32.0±0.5

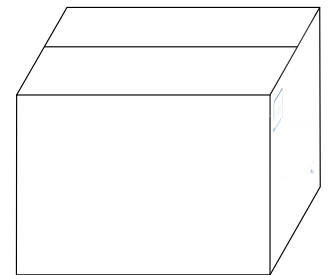
Packaging Quantity:



200 Pcs/Reel



2 Reel /Inner box(400 Pcs)



2 Inner box/Carton box(800 Pcs)

Cautions and Warnings:

- 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.

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