# MDSA Series

SMD Low Profile High Current Molded Inductor

Size 7050



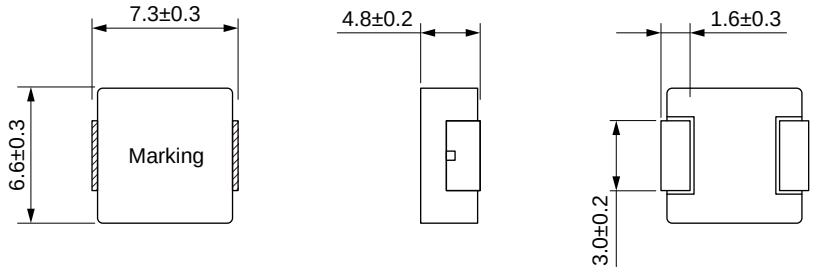
## FEATURES

- 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: 800PCS

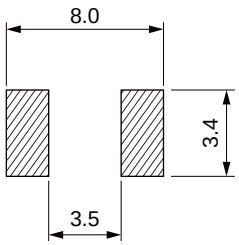
## APPLICATION

- Noise filter for various drive circuitry requiring high temp. opera on and peak current handing capability.
- Boost-Converter
- Buck-Converter DC/DC

## Dimensions: [mm]




## Land Pattern: [mm]

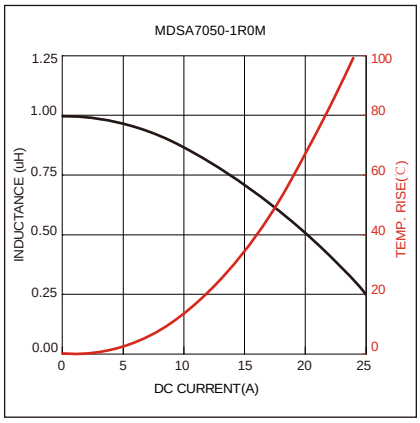


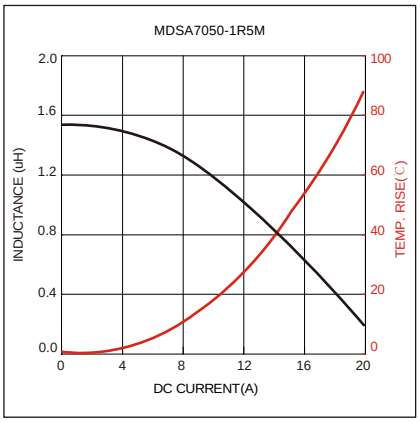

## Electrical Properties:

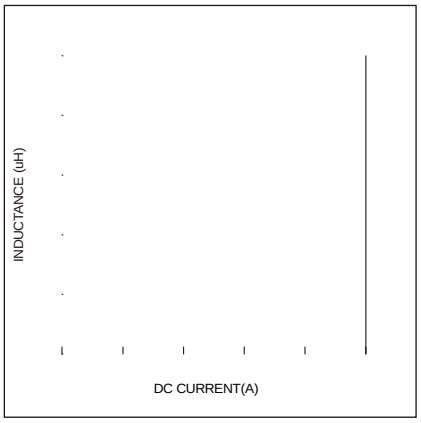
| Part No | Inductance @100KHz/1V (μH) | Tolerance | Temperature Rise Current Typ. (A) | Temperature Rise Current Max. (A) | Satura on Current Typ. (A) | Satura on Current Max. (A) | DC Resistance Typ. (mΩ) | DC Resistance Max. (mΩ) |
|---|---|---|---|---|---|---|---|---|
| MDSA7050-1R0M | 1.00 | ±20% | 17.0 | 14.4 | 16.0 | 12.5 | 5.70 | 6.30 |
| MDSA7050-1R5M | 1.50 | ±20% | 15.0 | 12.5 | 13.0 | 10.1 | 6.70 | 7.40 |
| MDSA7050-2R2M | 2.20 | ±20% | 14.0 | 11.6 | 10.0 | 8.20 | 10.1 | 11.7 |
| MDSA7050-3R3M | 3.30 | ±20% | 13.0 | 10.6 | 9.50 | 7.70 | 14.2 | 16.4 |
| MDSA7050-4R7M | 4.70 | ±20% | 11.0 | 9.20 | 8.80 | 7.20 | 21.1 | 24.3 |
| MDSA7050-5R6M | 5.60 | ±20% | 10.0 | 8.20 | 8.00 | 6.90 | 28.3 | 33.4 |
| MDSA7050-6R8M | 6.80 | ±20% | 9.00 | 7.70 | 7.60 | 6.70 | 30.3 | 36.4 |
| MDSA7050-8R2M | 8.20 | ±20% | 7.50 | 6.30 | 6.50 | 5.80 | 38.9 | 45.5 |

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

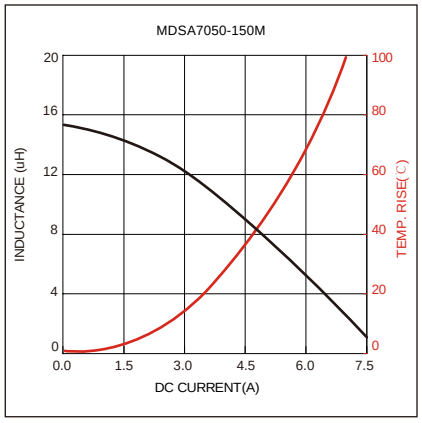
## Typical Electrical Characteristics:

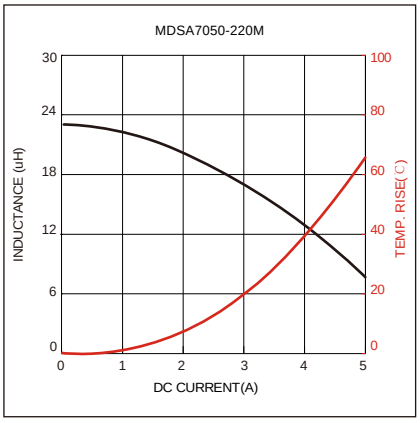


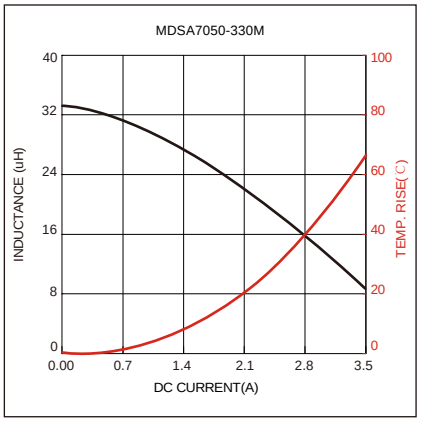



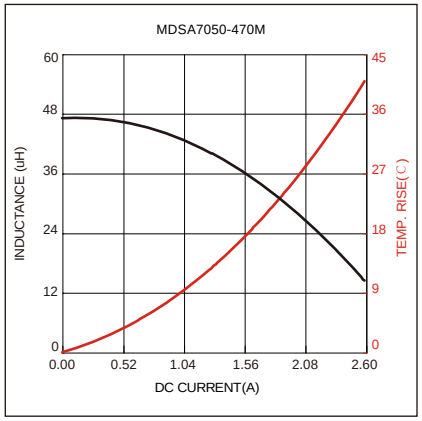



# Typical Electrical Characteristics:




**KOHER Electronics**
**F9, No. 4188, Huaning Rd, Minhang District, Shanghai**
**021-3470 sh EX5 1Re2group.com**

## Soldering Reflow:

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

Allowed time above 217℃: 60~90 sec.

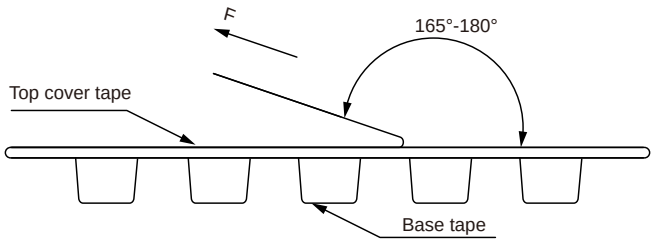
Max temperature: 260℃.

Allowed Reflow time: 2x max.

## Packaging Information:

Tape Dimension:

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

Reel Dimension：[mm]



Packaging Quantity: