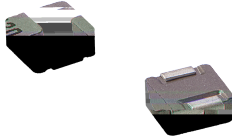




# MDA Series

## SMD Low Profile High Current Molded Inductor

### Size 4020



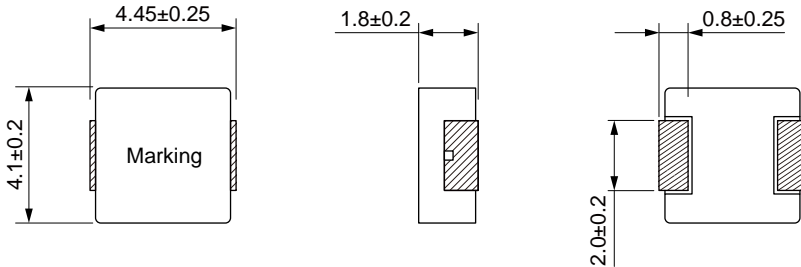
#### FEATURES

- 
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- 
- 100% Lead(Pb)-Free and RoHS compliant.
- 
- 
- 

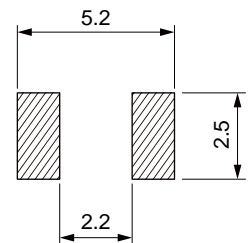
#### APPLICATION

- 
- HVAC
- 
- Audio subsystem
- Digital instrument cluster
- 

#### Dimensions: [mm]



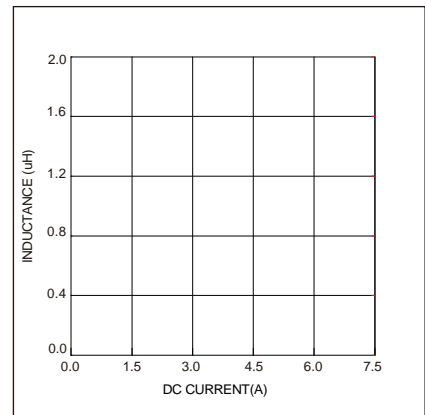
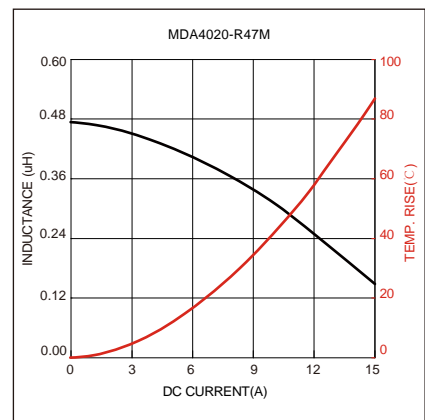
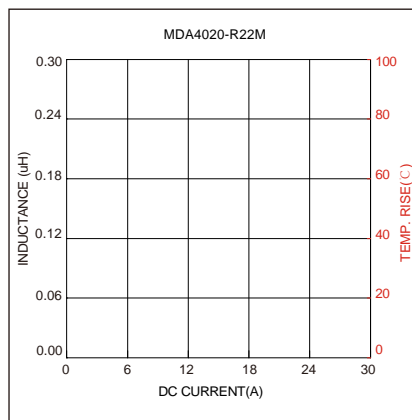
#### Land Pattern: [mm]



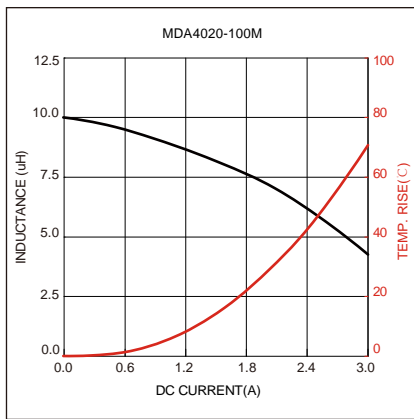
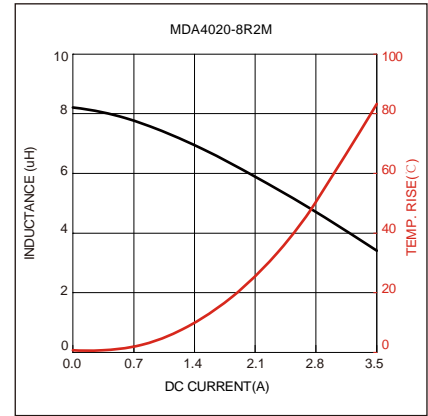
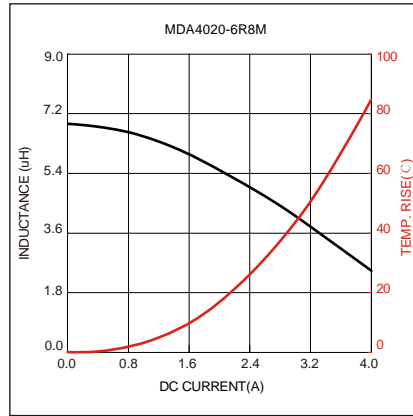
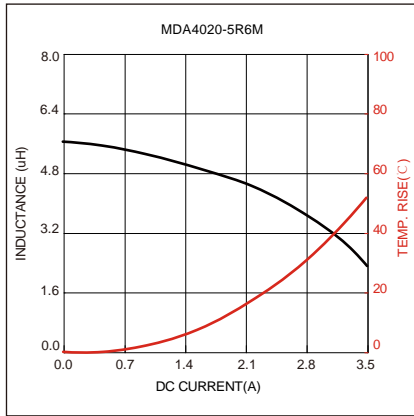
#### Electrical Properties:

|              | ( $\mu\text{H}$ ) |            |      |      | Saturation | Saturation | ( $\text{m}\Omega$ ) | ( $\text{m}\Omega$ ) |
|--------------|-------------------|------------|------|------|------------|------------|----------------------|----------------------|
| MDA4020-R10M | 0.10              | $\pm 20\%$ | 16.0 | 14.0 | 26.0       | 22.0       | 2.90                 |                      |
| MDA4020-R22M | 0.22              | $\pm 20\%$ | 14.0 |      |            |            | 4.80                 |                      |
| MDA4020-R47M | 0.47              | $\pm 20\%$ | 10.0 | 9.0  | 9.0        | 8.0        |                      | 11.0                 |
| MDA4020-R68M | 0.68              | $\pm 20\%$ | 9.0  | 8.0  | 7.6        | 6.6        | 11.6                 |                      |
| MDA4020-1R0M | 1.00              | $\pm 20\%$ |      |      |            |            | 19.0                 | 22.0                 |
|              |                   | $\pm 20\%$ | 6.7  |      |            | 4.8        | 27.0                 |                      |
| MDA4020-2R2M | 2.20              | $\pm 20\%$ |      |      |            | 4.0        | 41.0                 | 48.0                 |
|              |                   | $\pm 20\%$ |      |      |            | 2.7        |                      |                      |
| MDA4020-4R7M | 4.70              | $\pm 20\%$ |      |      | 2.8        |            | 84.0                 |                      |

## Typical Electrical Characteristics:



## Typical Electrical Characteristics:



## Soldering Reflow:

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

Allowed time above 217°C : 60~90 sec.

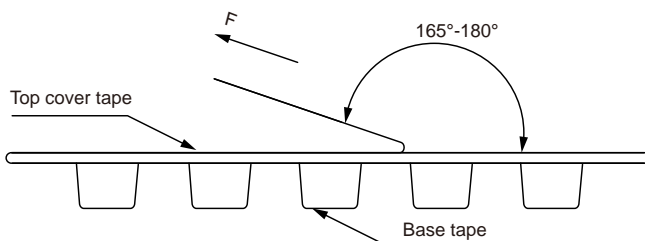
Max temperature: 260°C .

Allowed Reflow time: 2x max.

## Packaging Information:

Tape Dimension :

Peel force of top cover tape:

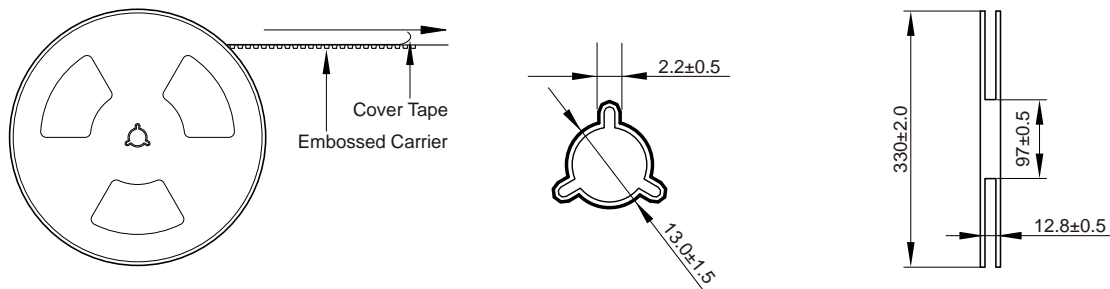


The peel force of top cover tape shall be between 0.1 to 1.3 N

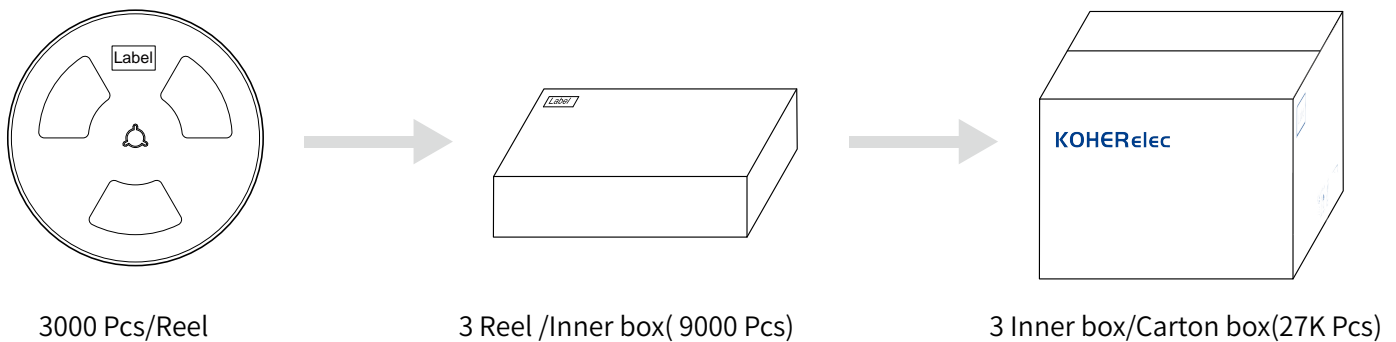
Product Marking:

|         |                         |
|---------|-------------------------|
| Marking | K+Printing (Inductance) |
|---------|-------------------------|

## Reel Dimension: [mm]



## Packaging Quantity:



## 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.