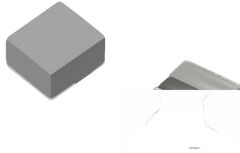


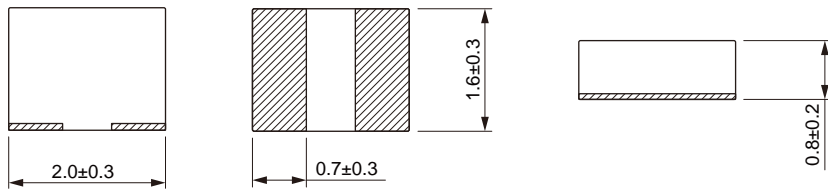
# SMD Low Profile High Current Molded Inductor Size 20161A



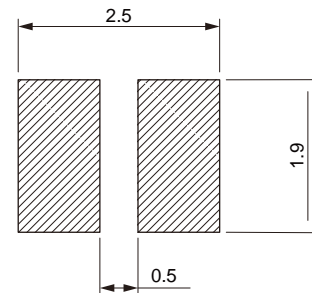
- High current, low DCR, high efficiency.
- Very low acoustic noise and very low leakage flux noise.
- AEC-Q200 qualified
- 100% Lead(Pb)-Free and RoHS compliant.
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 3000PCS

- ADAS
- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation

## Dimensions: [mm]



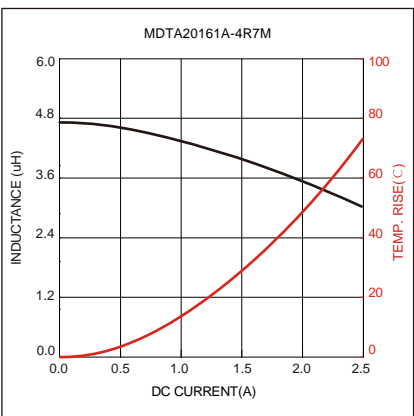
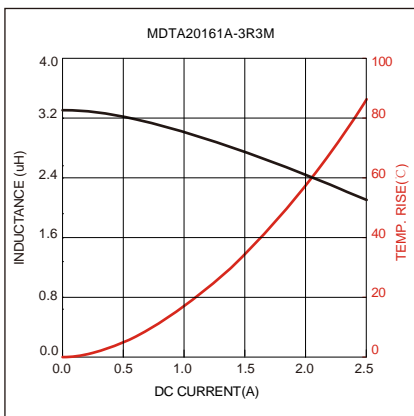
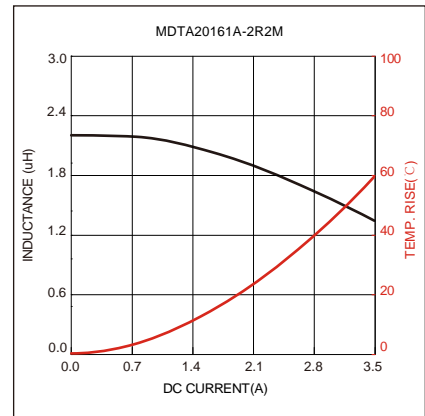
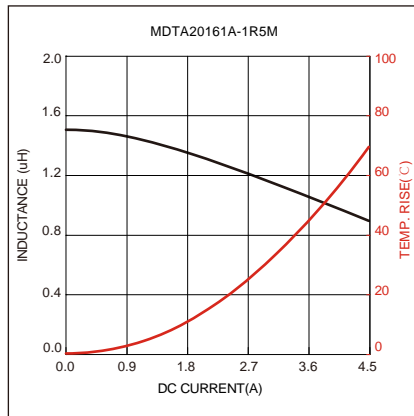
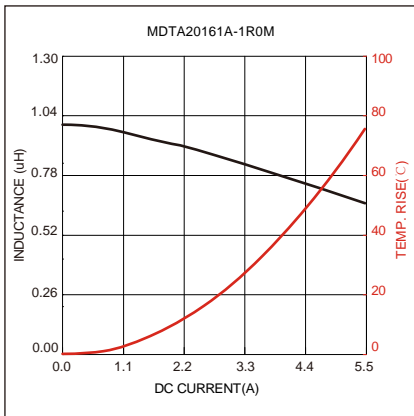
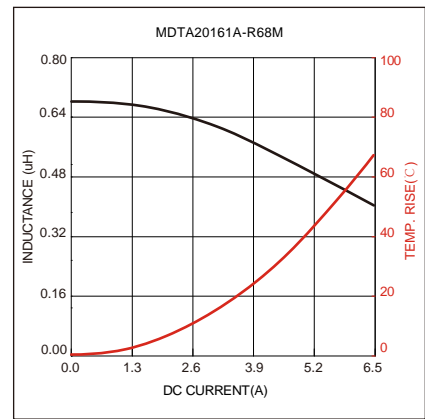
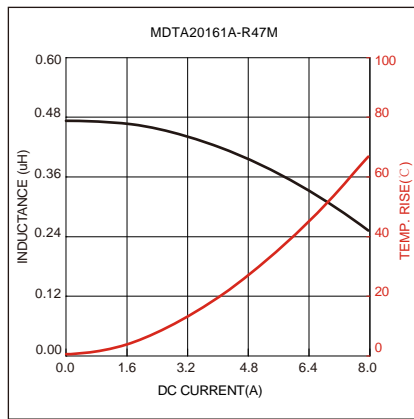
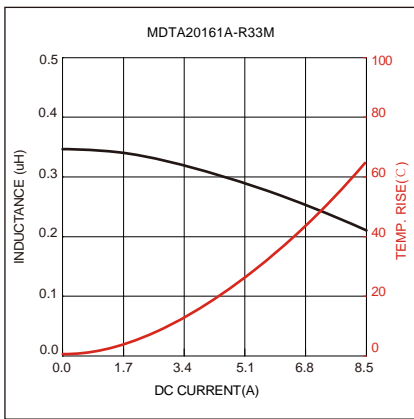
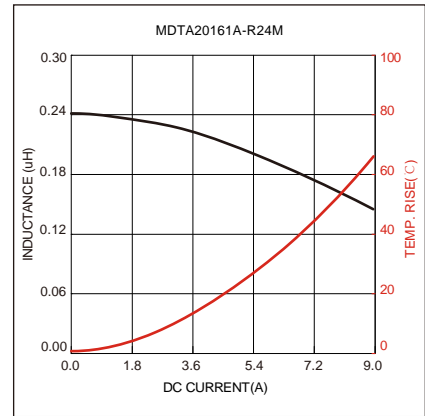
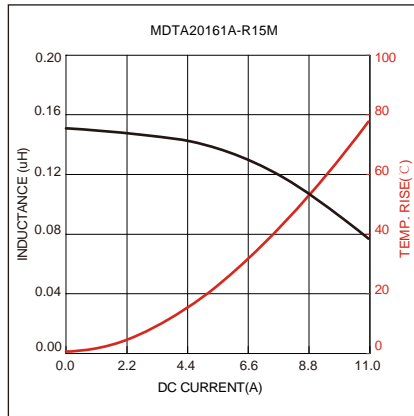
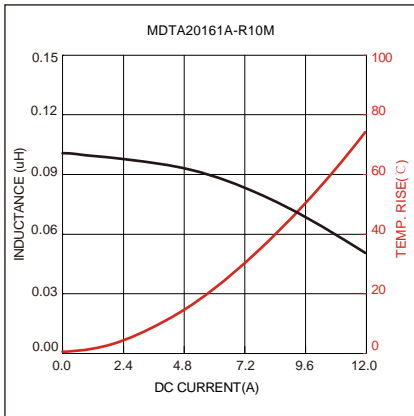
## Land Pattern: [mm]



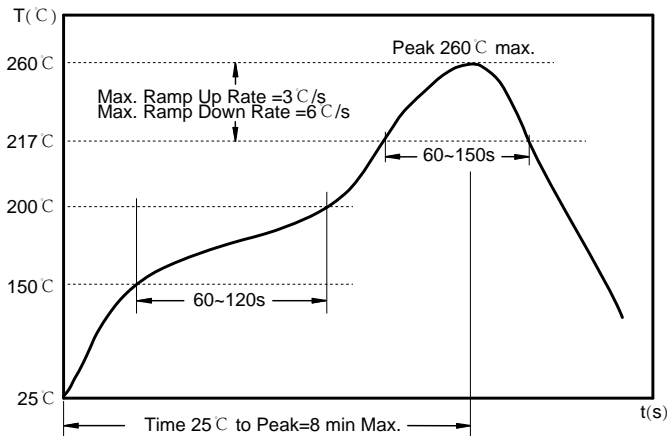
## Electrical Properties:

|                 | (μH) |      |     | (mΩ) |     |     |    | (mΩ) |  |
|-----------------|------|------|-----|------|-----|-----|----|------|--|
| MDTA20161A-R24M | 0.24 | ±20% | 6.8 | 6.2  | 7.3 | 7.0 | 15 | 18   |  |
| MDTA20161A-R33M | 0.33 | ±20% | 6.5 | 6.0  | 7.0 | 6.5 | 17 | 20   |  |
| MDTA20161A-R47M | 0.47 | ±20% | 6.0 | 5.5  | 6.3 | 5.5 | 19 | 22   |  |
| MDTA20161A-R68M | 0.68 | ±20% | 5.0 | 4.5  | 5.2 | 4.7 | 24 | 31   |  |
| MDTA20161A-1R0M | 1.00 | ±20% | 4.0 | 3.7  | 4.8 | 4.2 | 38 | 46   |  |

# Typical Electrical Characteristics:



## Soldering Reflow:



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

Allowed time above 217 C: 60~150 sec.

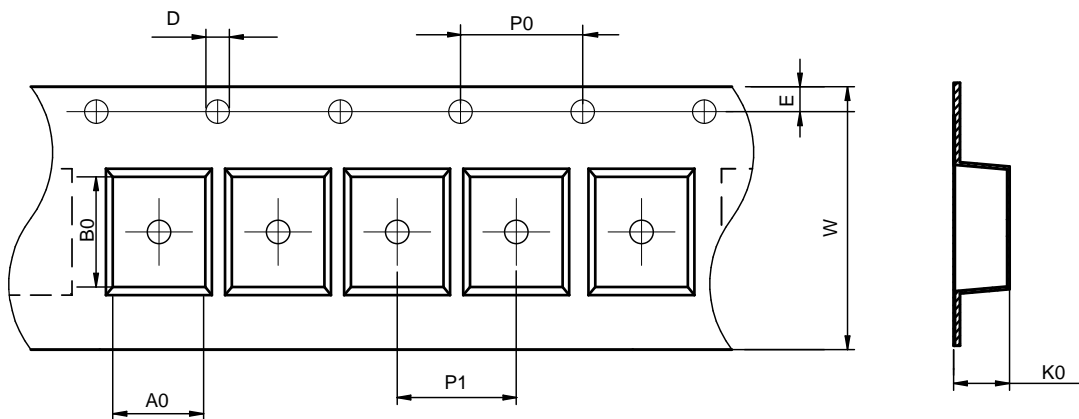
Max temperature: 260 C.

Max time at max temperature: 10 sec.

Allowed Reflow time: 3x max.

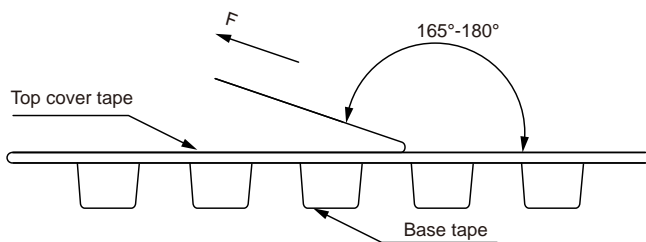
## Packaging Information:

### Tape Dimension:



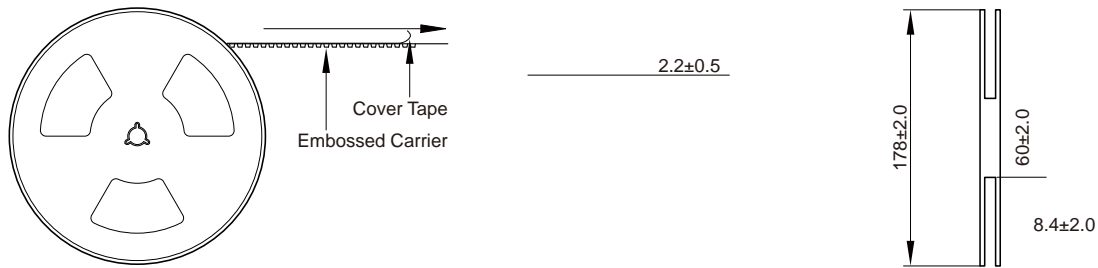
| Series     | A0 (mm)  | B0 (mm)  | D (mm)   | P0 (mm)  | P1 (mm) | W (mm)   | K0 (mm)  | E (mm)    | T (mm)     |
|------------|----------|----------|----------|----------|---------|----------|----------|-----------|------------|
| MDTA20161A | 1.9± 0.1 | 2.3± 0.1 | 1.5± 0.1 | 4.0± 0.1 | 4± 0.1  | 8.0± 0.3 | 1.2± 0.1 | 1.75± 0.1 | 0.25± 0.05 |

### Peel force of top cover tape:

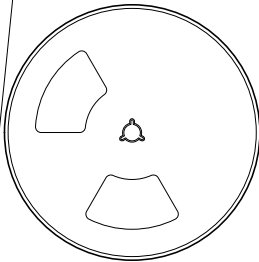


The peel force of top cover tape shall be between 0.1 to 0.98 N

## 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  $35^{\circ}\text{C}$ , 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  $150^{\circ}\text{C}$ .
- 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.