

MDTA Series

Flat Wire Molded Inductor Size 6030



FEATURES

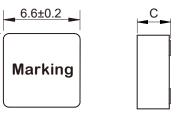
- Flat wire coil for low copper losses
- Composoite core material allows high saturation currents
- Very low acoustic noise and very low leakage flux noise
- High current capability and handles high transient current spikes
- AEC-Q200 qualified
- Operating temperature -55 to +155 °C (Including self temperature rise)
- Quantity: 1000pcs

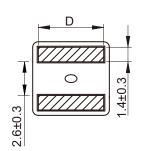
APPLICATION

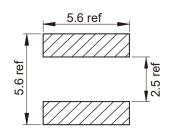
- DC/DC converters for entertainment/navigation systems
 Noise suppression for motors: windshield wipers / power seats/ power mirrors / heating and ventilation blowers / HID lighting
- LED drivers

Dimensions: [mm]

 6.4 ± 0.2







Land Pattern: [mm]

Electrical Properties:

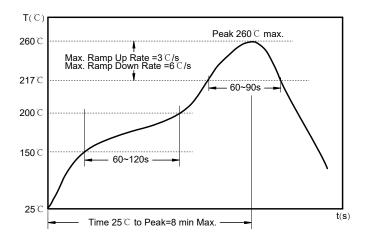
| Part No | L@100KHz /0.1V (μH) | Tolerance | I _{SAT} Typ. (A) | I _R (A) | | | | |
|---------------|------------------------|-----------|------------------------------|--------------------|-----------|------------------------------|-----------|-----------|
| | | | | 20°C rise | 40°C rise | R _{DC} Max. (mΩ) | C (mm) | D (mm) |
| MDTA6030-R18M | 0.18 | ±20% | 40.0 | 24.0 | 32.0 | 1.75 | 2.8±0.2 | 5.30±0.3 |
| MDTA6030-R33M | 0.33 | ±20% | 32.0 | 20.0 | 25.0 | 2.50 | 2.8±0.2 | 5.55±0.3 |
| MDTA6030-R56M | 0.56 | ±20% | 29.0 | 17.0 | 22.0 | 3.31 | 2.8±0.2 | 5.30±0.3 |
| MDTA6030-R68M | 0.68 | ±20% | 25.0 | 15.0 | 20.0 | 5.17 | 2.8±0.2 | 5.30±0.3 |
| MDTA6030-1R0M | 1.00 | ±20% | 23.0 | 13.0 | 18.0 | 6.05 | 2.8±0.2 | 5.20±0.3 |
| MDTA6030-1R2M | 1.20 | ±20% | 22.0 | 12.0 | 16.0 | 7.40 | 2.8±0.2 | 5.15±0.3 |
| MDTA6030-1R5M | 1.50 | ±20% | 20.0 | 11.0 | 15.0 | 9.13 | 2.9±0.2 | 5.15±0.3 |
| MDTA6030-1R8M | 1.80 | ±20% | 18.2 | 10.0 | 14.0 | 10.2 | 2.9±0.2 | 5.10±0.3 |
| MDTA6030-2R2M | 2.20 | ±20% | 15.9 | 7.00 | 10.0 | 12.2 | 2.9±0.2 | 5.05±0.3 |
| MDTA6030-3R3M | 3.30 | ±20% | 12.2 | 6.00 | 8.00 | 20.8 | 2.9±0.2 | 5.00±0.3 |
| MDTA6030-4R5M | 4.50 | ±20% | 10.0 | 5.00 | 7.00 | 25.3 | 2.9±0.2 | 5.00±0.3 |

Saturation Current will cause L to drop approximately 30%

Temperature Rise Current that causes the specified temperature rise from 25°C ambient.



Soldering Reflow:



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

Allowed time above 217 °C: 60~90 sec.

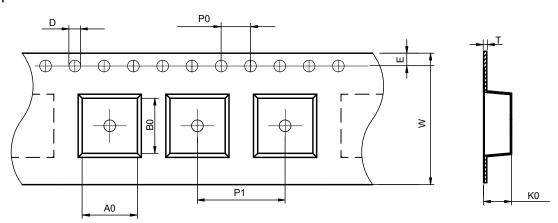
Max temperature: 260 ℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

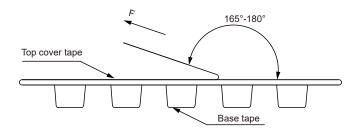
Packaging Information:

Tape Dimension:



| Series | A0 | B0 | D | P0 | P1 | W | K0 | E | T |
|----------|---------|---------|---------|---------|----------|----------|---------|----------|-----------|
| | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) |
| MDTA6030 | 7.0±0.1 | 6.8±0.1 | 1.5±0.1 | 4.0±0.1 | 12.0±0.1 | 16.0±0.3 | 3.3±0.1 | 1.75±0.1 | 0.35±0.05 |

Peel force of top cover tape:



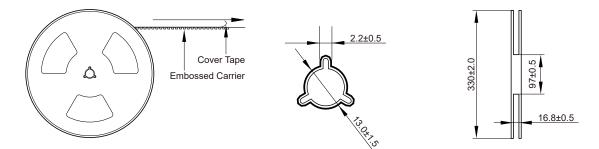
The peel force of top cover tape shall be between 0.1 to 1.3 N

Product Marking:

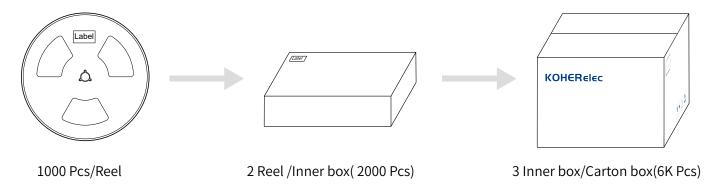
| Marking | Printing (Inductance) |
|---------|-----------------------|
|---------|-----------------------|



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.