

## MDTA Series

### Flat Wire Molded Inductor

#### Size 6050



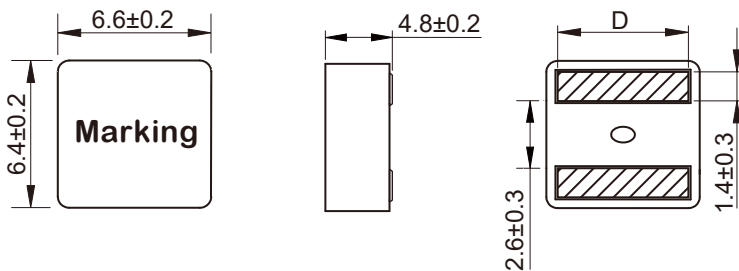
#### FEATURES

- Flat wire coil for low copper losses
- Composite 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: 800pcs

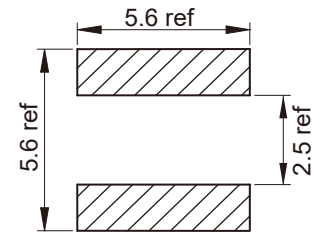
#### APPLICATION

- 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]



Land Pattern: [mm]



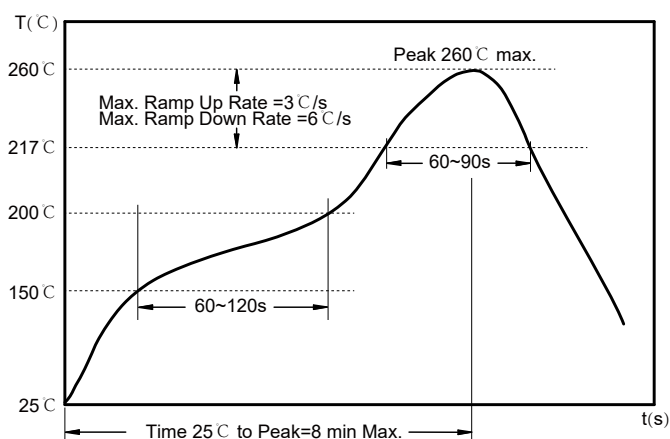
Electrical Properties:

Part No	L@100KHz /0.1V (μH)	Tolerance	I <sub>SAT</sub> Typ. (A)	I <sub>R</sub> (A)		R <sub>DC</sub> Max. (mΩ)	D (mm)
				20°C rise	40°C rise		
MDTA6050-R82M	0.82	±20%	24.0	16.0	21.0	4.18	5.3±0.3
MDTA6050-1R0M	1.00	±20%	23.0	15.0	20.0	4.52	5.3±0.3
MDTA6050-1R2M	1.20	±20%	22.0	14.0	18.0	5.83	5.3±0.3
MDTA6050-1R5M	1.50	±20%	19.5	13.0	17.0	6.30	5.3±0.3
MDTA6050-1R8M	1.80	±20%	18.5	12.0	16.0	7.10	5.3±0.3
MDTA6050-2R2M	2.20	±20%	16.0	10.0	13.0	8.50	5.2±0.3
MDTA6050-3R3M	3.30	±20%	12.5	8.5	11.0	12.5	5.2±0.3
MDTA6050-4R3M	4.30	±20%	11.0	7.0	9.0	16.2	5.2±0.3
MDTA6050-4R7M	4.70	±20%	10.5	6.5	8.5	18.4	5.2±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.

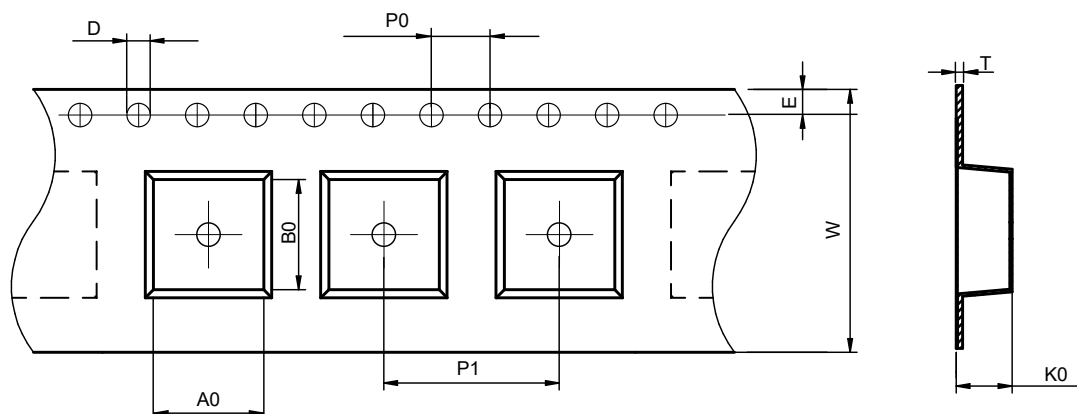
Max temperature: 260 °C .

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

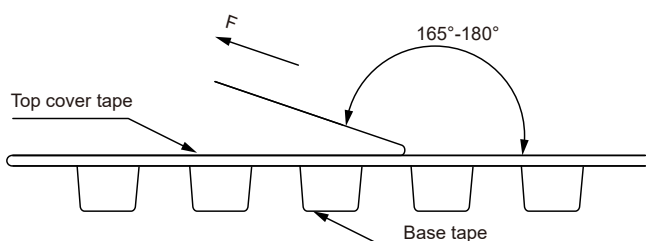
## Packaging Information:

### Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTA6050	7.0±0.1	6.8±0.1	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	5.3±0.1	1.75±0.1	0.40±0.05

### Peel force of top cover tape:

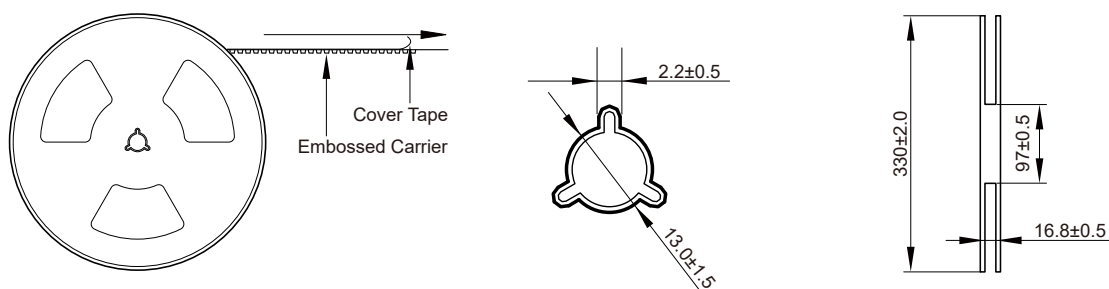


The peel force of top cover tape shall be between 0.1 to 1.3 N

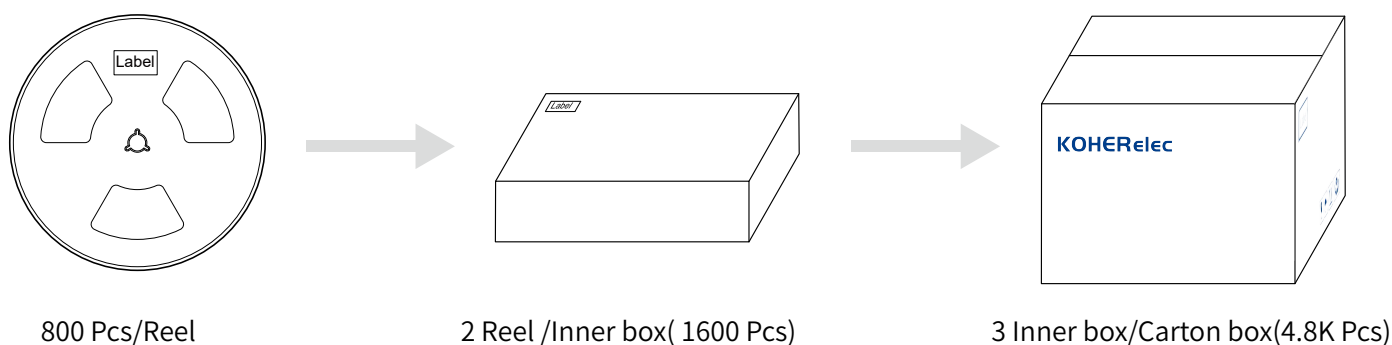
### Product Marking:

Marking	Printing (Inductance)
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## 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.