



## MDTE Series

### Wire Wound Molded SMD Power Inductors

#### Size 5050



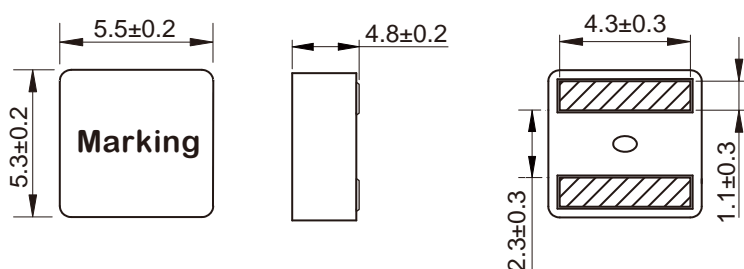
#### FEATURES

- So saturation
- High current, low DCR, high efficiency
- Very low acoustic noise and very low leakage flux noise
- High reliability
- 100% Lead(Pb)-Free and RoHS compliant
- Operating temperature -55~+125°C (Including self-temperature rise)
- Quantity: 1500pcs

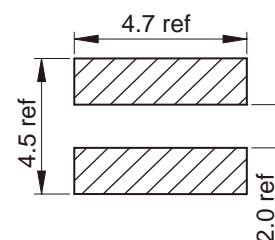
#### APPLICATION

- Note PC power system, incl. IMVP-6
- DC/DC converter

#### Dimensions: [mm]



#### Land Pattern: [mm]



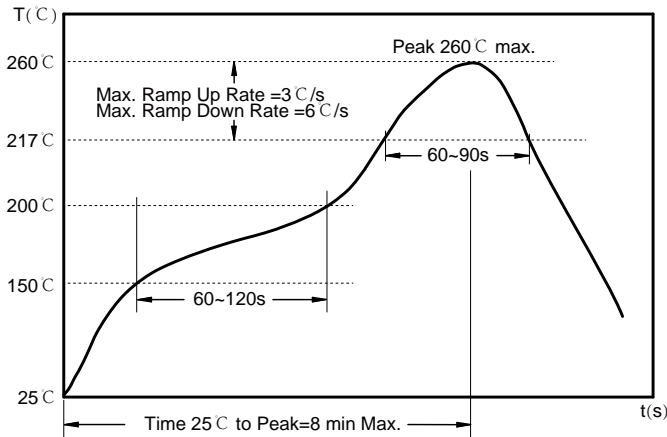
#### Electrical Properties:

			Saturation			(mA)
			(A)	(A)	(A)	
MDTE5050-5R6M	5.6	±20%	8.6	7.2	7.2	24.20
MDTE5050-6R8M	6.8	±20%	7.8	6.6	6.4	28.60
MDTE5050-8R2M	8.2	±20%	7.2	6.1	6.1	32.50
MDTE5050-100M	10	±20%	6.5	5.4	5.0	43.00
MDTE5050-150M	15	±20%	3.7	3.2	3.9	76.70
MDTE5050-220M	22	±20%	3.6	3.0	3.4	99.65

Saturation Current will cause L to drop approximately 30%

Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

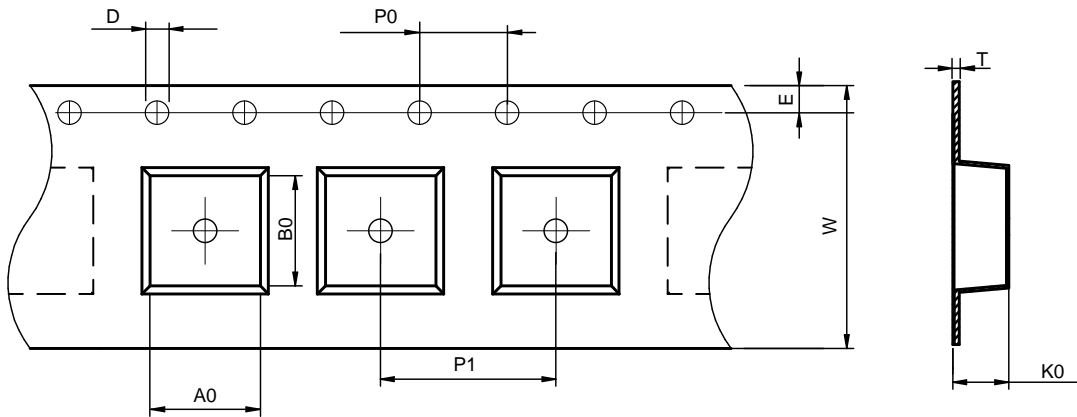
## Soldering Reflow:



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.

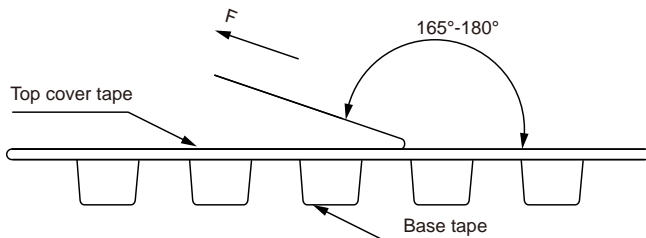
## Packaging Information:

### Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTE5050	6.0±0.1	5.7±0.1	1.5±0.1	4.0±0.1	8.0±0.1	16.0±0.3	5.3±0.1	1.75±0.1	0.35±0.05

### Peel force of top cover tape:

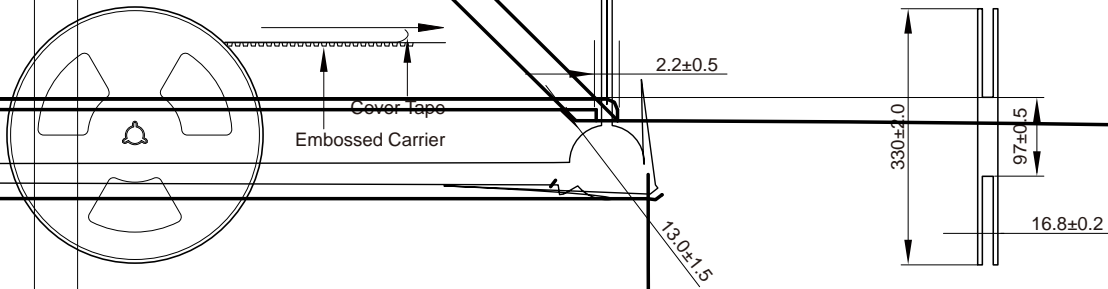


The peel force of top cover tape shall be between 0.1 to 1.3 N

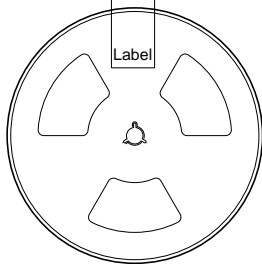
### Product Marking:

Marking	Printing (Inductance)
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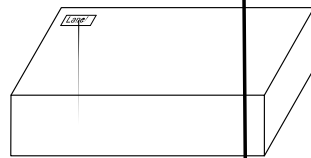
Reel Dimension: [mm]



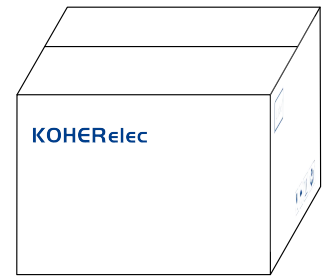
Packaging Quantity:



1500 Pcs/Reel



3 Reel /Inner box(4500 Pcs)



3 Inner box/Carton box(13.5K Pcs)

## 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.
- 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.