

MDTE Series

Wire Wound Molded SMD Power Inductors

Size 6050



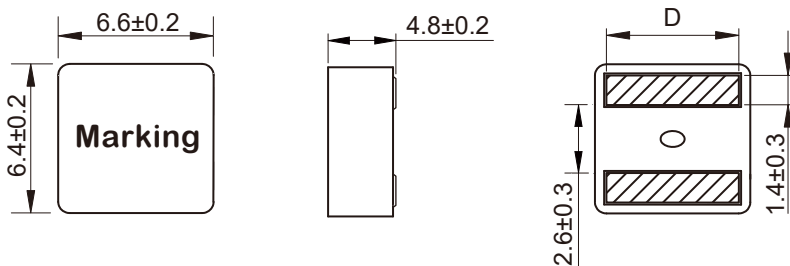
FEATURES

- Soft 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: 800pcs

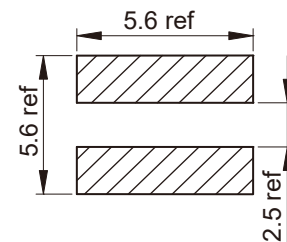
APPLICATION

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

Dimensions: [mm]



Land Pattern: [mm]



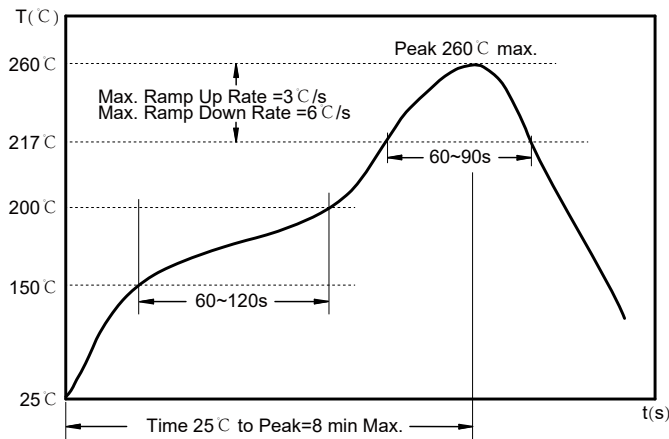
Electrical Properties:

Part No	Inductance @ 100KHz/0.1V (μH)	Tolerance	Saturation Current Typ. (A)	Saturation Current Max. (A)	Temperature Rise Current Typ. (A)	DC Resistance Max. (mΩ)	D (mm)
MDTE6050-R82M	0.82	±20%	24.0	20.0	21.0	4.18	5.3±0.3
MDTE6050-1R0M	1.00	±20%	23.0	18.0	20.0	4.52	5.3±0.3
MDTE6050-1R2M	1.20	±20%	22.0	16.0	18.0	5.83	5.3±0.3
MDTE6050-1R5M	1.50	±20%	19.5	14.5	17.0	6.30	5.3±0.3
MDTE6050-1R8M	1.80	±20%	18.5	13.5	16.0	7.10	5.3±0.3
MDTE6050-2R2M	2.20	±20%	16.0	12.0	13.0	8.50	5.2±0.3
MDTE6050-3R3M	3.30	±20%	12.5	10.0	11.0	12.5	5.2±0.3
MDTE6050-4R3M	4.30	±20%	11.0	8.5	9.0	16.2	5.2±0.3
MDTE6050-4R7M	4.70	±20%	10.5	8.0	8.5	18.4	5.2±0.3

Saturation Current will cause L to drop approximately 30%

Temperature Rise Current: The actual value of DC current when the temperature rise is ΔT=40°C

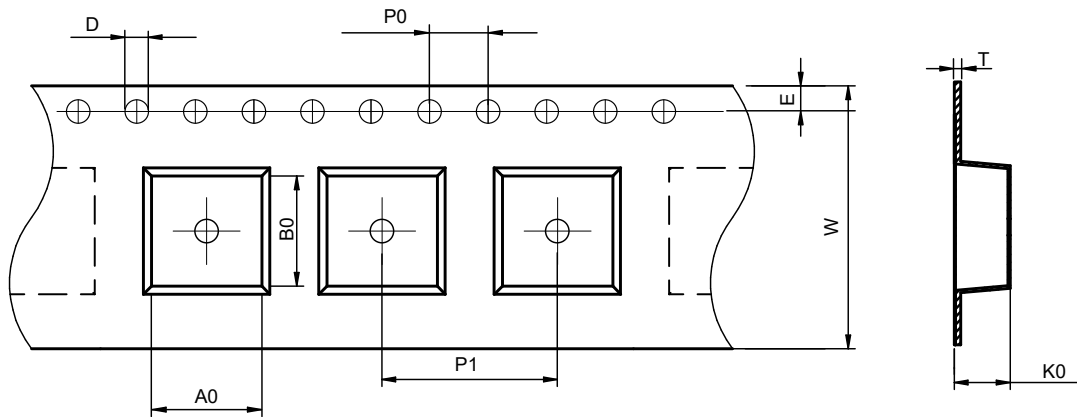
Soldering Reflow:



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.

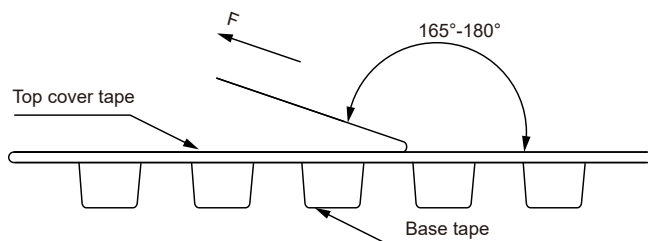
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTE6050	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	0.35±0.05

Peel force of top cover tape:

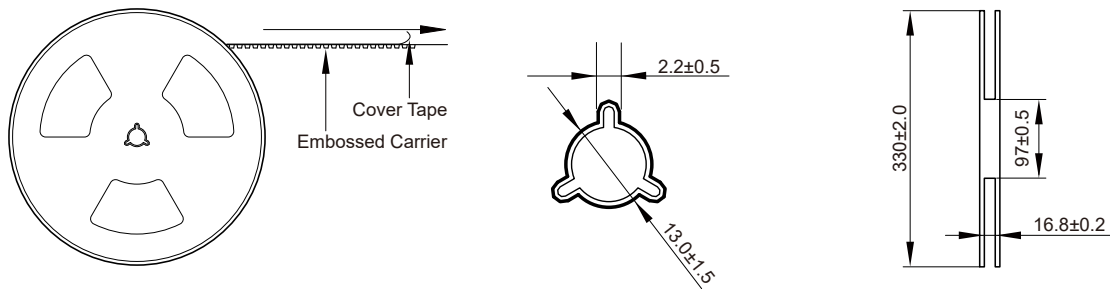


The peel force of top cover tape shall be between 0.1 to 1.3 N

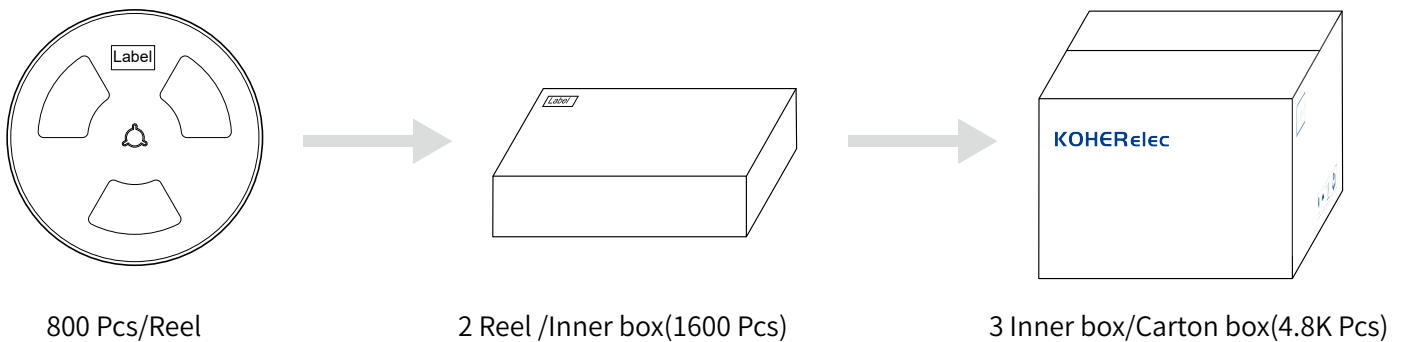
Product Marking:

Marking	Printing (Inductance)
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Reel Dimension: [mm]



Packaging Quantity:



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.