

MDTE Series

Wire Wound Molded SMD Power Inductors

Size 6030



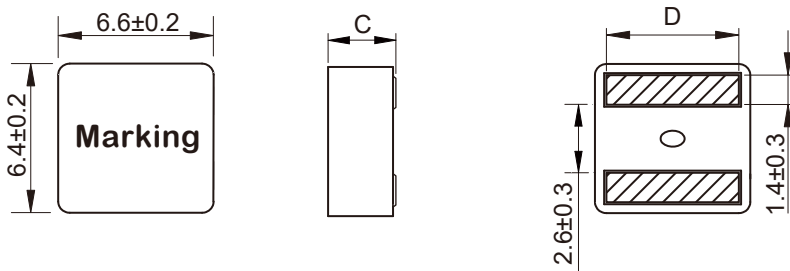
FEATURES

- 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: 1000pcs

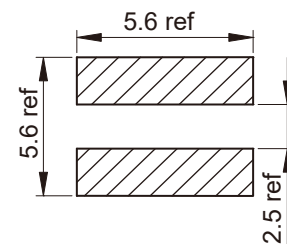
APPLICATION

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

Dimensions: [mm]



Land Pattern: [mm]



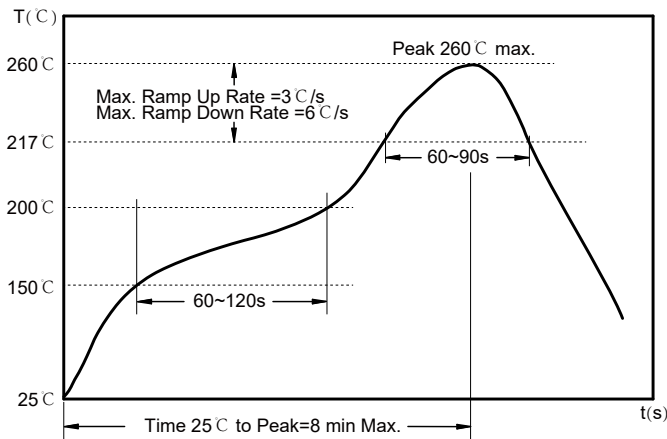
Electrical Properties:

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)	C (mm)	D (mm)
MDTE6030-R18M	0.18	±20%	40.0	36.0	32.0	1.75	2.8±0.2	5.30±0.3
MDTE6030-R33M	0.33	±20%	32.0	28.0	25.0	2.50	2.8±0.2	5.55±0.3
MDTE6030-R56M	0.56	±20%	29.0	25.0	22.0	3.31	2.8±0.2	5.30±0.3
MDTE6030-R68M	0.68	±20%	25.0	21.0	20.0	5.17	2.8±0.2	5.30±0.3
MDTE6030-1R0M	1.00	±20%	23.0	18.0	18.0	6.05	2.8±0.2	5.20±0.3
MDTE6030-1R2M	1.20	±20%	22.0	16.0	16.0	7.40	2.8±0.2	5.15±0.3
MDTE6030-1R5M	1.50	±20%	20.0	15.5	15.0	9.13	2.9±0.2	5.15±0.3
MDTE6030-1R8M	1.80	±20%	18.2	13.0	14.0	10.2	2.9±0.2	5.10±0.3
MDTE6030-2R2M	2.20	±20%	15.9	11.0	10.0	12.2	2.9±0.2	5.05±0.3
MDTE6030-3R3M	3.30	±20%	12.2	9.00	8.00	20.8	2.9±0.2	5.00±0.3
MDTE6030-4R5M	4.50	±20%	10.0	8.00	7.00	25.3	2.9±0.2	5.00±0.3

Saturation Current will cause L to drop approximately 30%

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

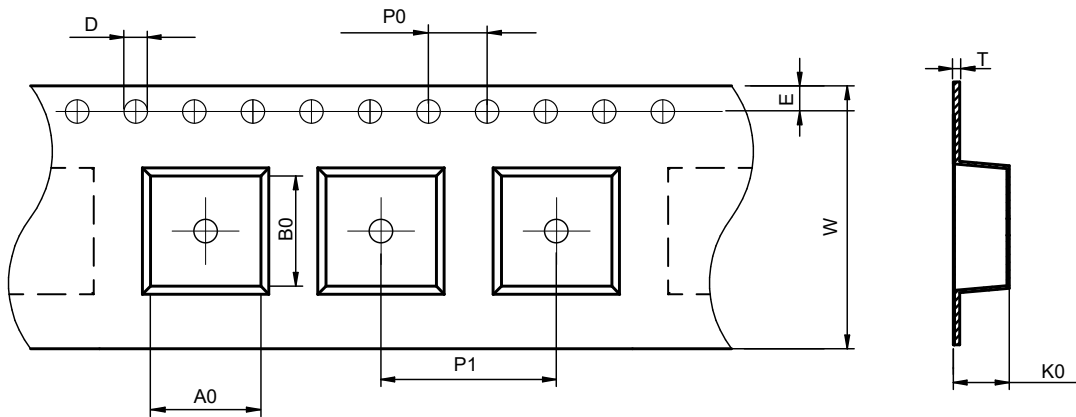
Soldering Reflow:



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.

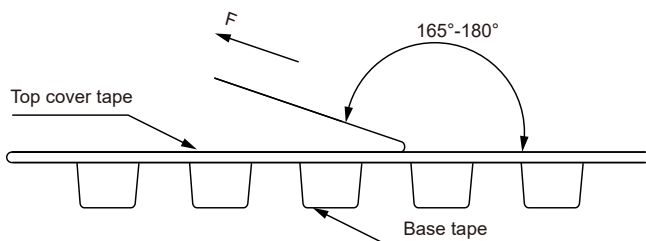
Packaging Information:

Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTE6030	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:

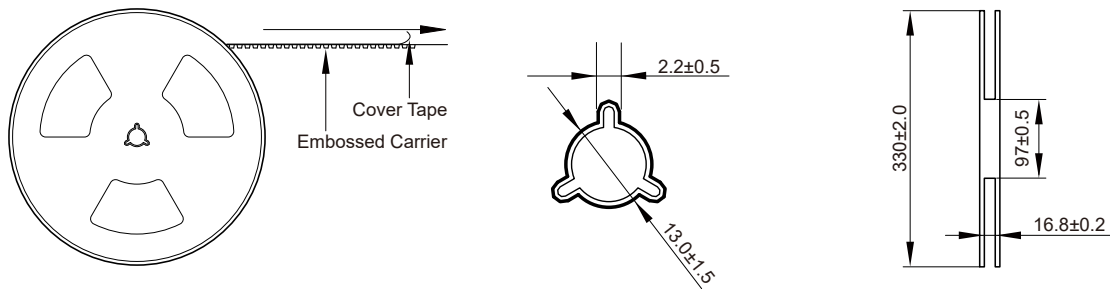


The peel force of top cover tape shall be between 0.1 to 1.3 N

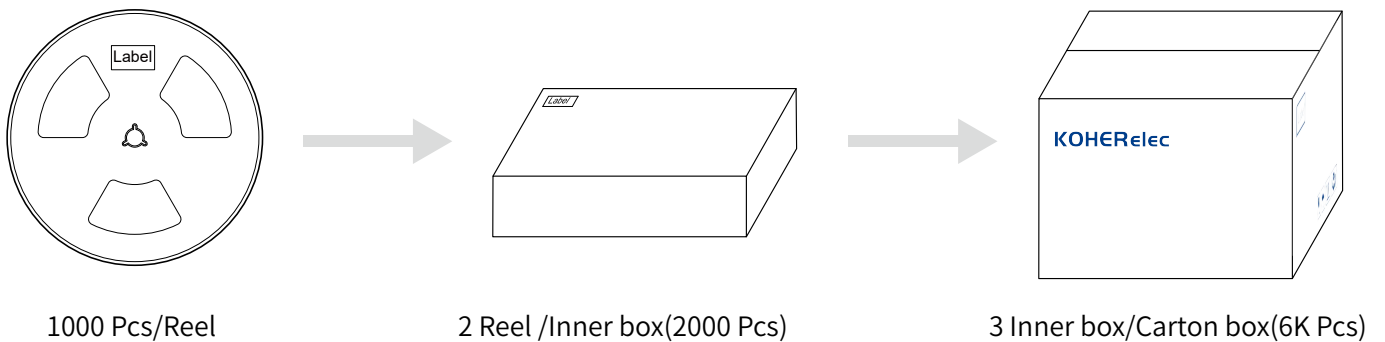
Product Marking:

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.
- 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.