

MDTE Series

Wire Wound Molded SMD Power Inductors

Size 7070



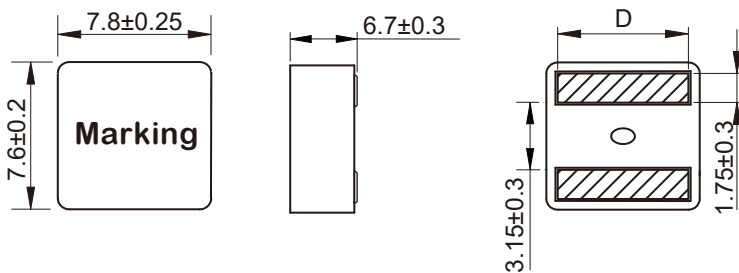
FEATURES

- 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: 700pcs

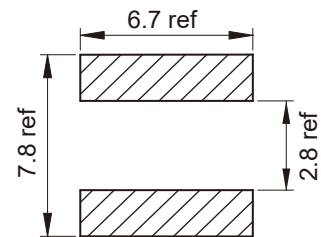
APPLICATION

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

Dimensions: [mm]



Land Pattern: [mm]



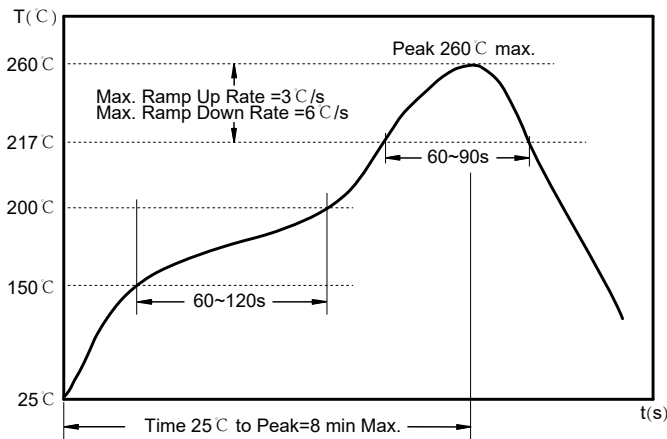
Electrical Properties:

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)
MDTE7070-1R0M	1.0	±20%	34.8	31.8	25.0	2.81	6.7±0.3
MDTE7070-1R8M	1.8	±20%	25.0	23.0	21.0	4.46	6.7±0.3
MDTE7070-3R3M	3.3	±20%	19.4	15.1	15.1	9.42	6.7±0.3
MDTE7070-4R7M	4.7	±20%	15.5	14.0	13.6	13.5	6.7±0.3
MDTE7070-6R8M	6.8	±20%	12.8	11.0	9.5	19.6	6.5±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 $\Delta T=40^{\circ}\text{C}$

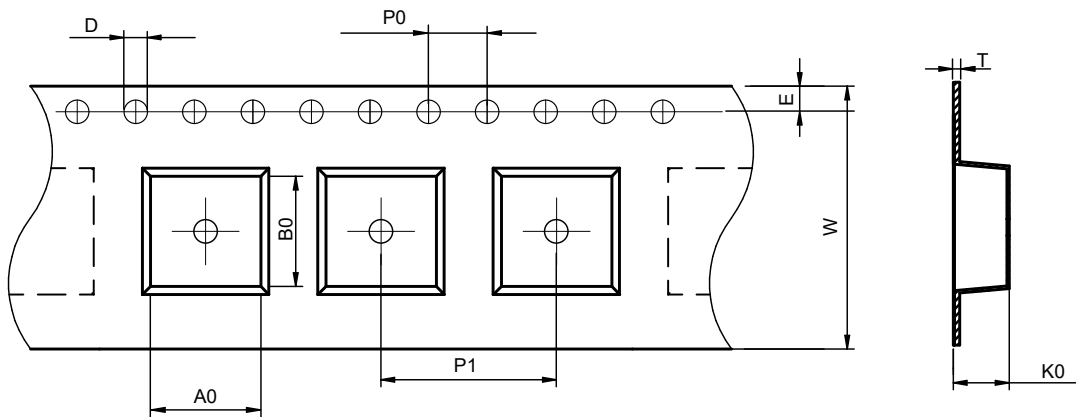
Soldering Reflow:



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.

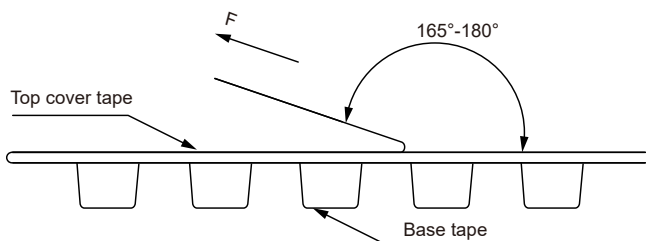
Packaging Information:

Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTE7070	8.2±0.1	8.0±0.1	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	7.3±0.1	1.75±0.1	0.35±0.05

Peel force of top cover tape:

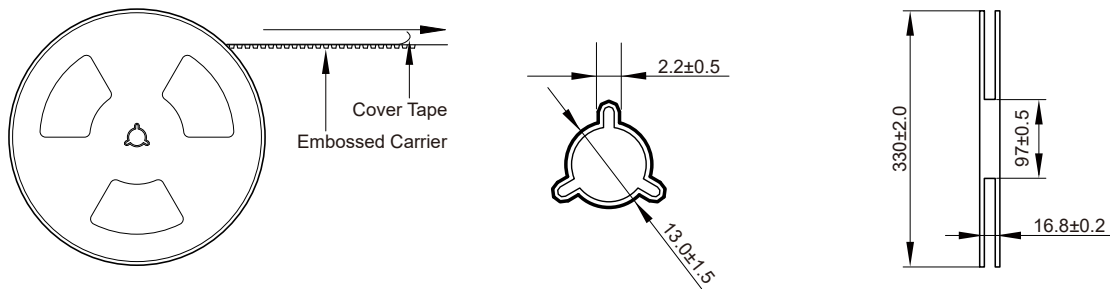


The peel force of top cover tape shall be between 0.1 to 1.3 N

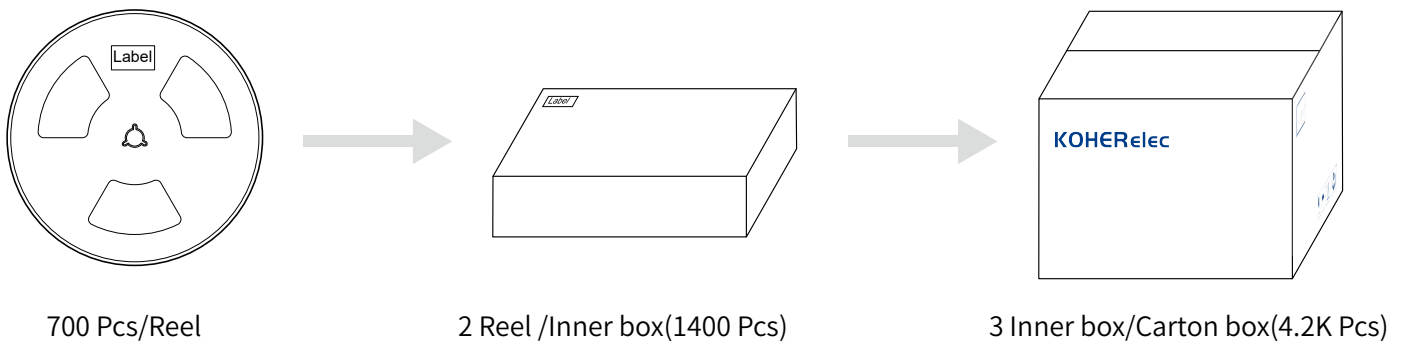
Product Marking:

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.