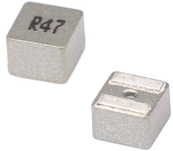


MDTE Series

Wire Wound Molded SMD Power Inductors

Size 4030



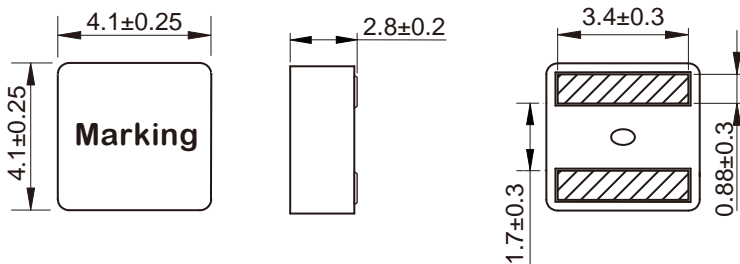
FEATURES

- 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: 2000pcs

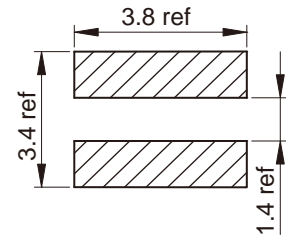
APPLICATION

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

Dimensions: [mm]



Land Pattern: [mm]



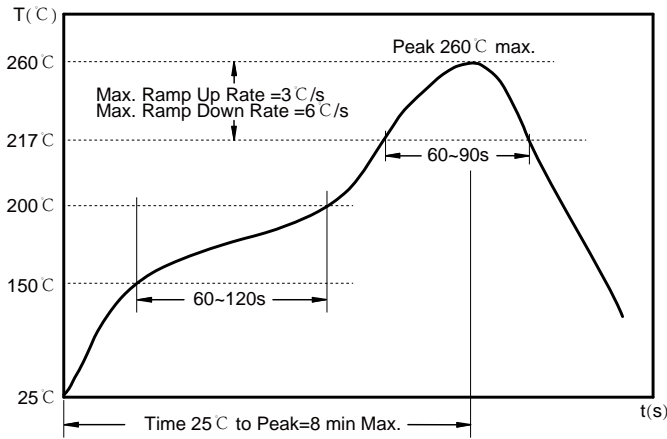
Electrical Properties:

Part Number	Inductance (μH)	Inductance Tolerance (%)	DC Resistance (mΩ)	DC Resistance (mΩ)	DC Resistance (mΩ)	DC Resistance (mΩ)
MDTE4030-R47M	0.47	±20%	17.0	15.0	14.0	7.26
MDTE4030-R90M	0.90	±20%	10.0	9.00	11.2	10.1
MDTE4030-1R0M	1.00	±20%	9.80	9.20	11.0	10.1
MDTE4030-1R2M	1.20	±20%	9.20	8.70	9.80	11.5
MDTE4030-1R5M	1.50	±20%	8.00	7.00	9.00	13.2
MDTE4030-2R2M	2.20	±20%	7.00	6.10	7.80	22.6
MDTE4030-3R3M	3.30	±20%	6.20	5.30	6.60	28.6
MDTE4030-4R7M	4.70	±20%	4.50	4.00	5.10	44.1
MDTE4030-6R8M	6.80	±20%	3.60	3.00	3.90	74.1

Saturation Current will cause L to drop approximately 30%

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

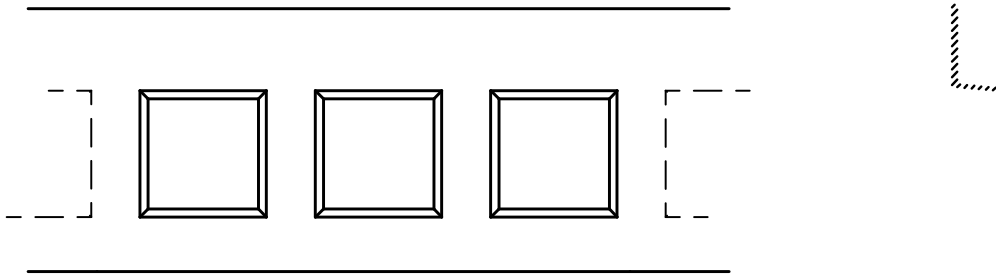
Soldering Reflow:



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.

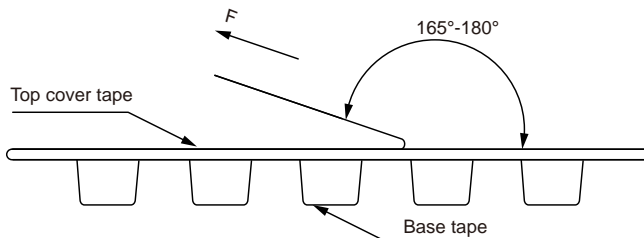
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTE4030	4.5± 0.1	4.5± 0.1	1.5± 0.1	4.0± 0.1	8.0± 0.1	12.0± 0.3	3.3± 0.1	1.75± 0.1	0.35± 0.05

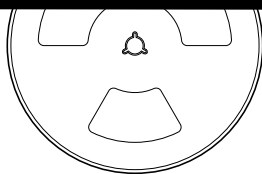
Peel force of top cover tape:



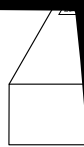
The peel force of top cover tape shall be between 0.1 to 1.3 N

Product Marking:

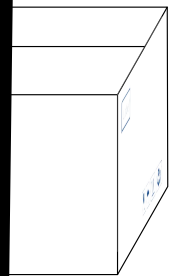
Marking	Printing Inductance)
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2000 Pcs/Reel



3 Reel /In



ton box(18K Pcs)

Cautions and Warnings:

Storage Conditions :

- The storage period is within 12 months after the date of manufacture (temperature: -5 to 35°C, humidity: 75% RH). If the storage conditions are not met, the terminal electrodes may deteriorate.
- Product should not be exposed to environment with high humidity, high temperature, etc.
- Products should be handled with care to avoid damage to the components.
- Please always handle products carefully to prevent damage to the components when removing.

Storage condi-
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appropriate

Operation Instructions:

- Self heating (temperature increase) occurs when the power is applied for the set thermal design.
- Before soldering, be sure to preheat components. The temperature difference between the solder temperature and the component temperature should be within the specified range.
- Soldering corrections after mounting should be with care. If overheated, a short circuit, performance degradation may occur.
- Generally, Kohler might not be familiar with either customer's design or application. As a result customer shall be responsible for the performance described in the product specification sheet.

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