

#### **MDTE Series**

### Wire Wound Molded SMD Power Inductors Size 4030



#### **FEATURES**

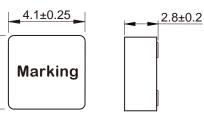
- So satura on
- High current, low DCR, high e ciency
- Very low acous c noise and very low leakage flux noise
- High reliability
- 100% Lead(Pb)-Free and RoHS compliant
- Opera ng temperature -55~+125°C (Induding self temperature rise)
- Quan ty: 2000pcs

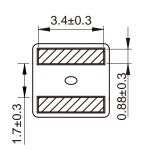
#### **APPLICATION**

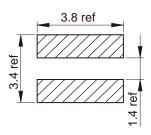
- Note PC power system, ind. IMVP-6
- DC/DC converter

Dimensions: [mm]

 $4.1\pm0.25$ 







Land Pattern: [mm]

## **Electrical Properties:**

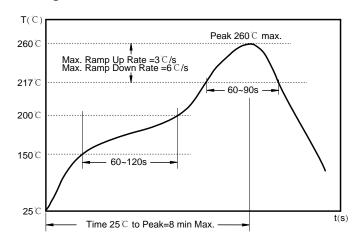
Part No	Inductance @ 100KHz/ 0.1V	Tolerance	Current Typ.	Current Max.	Temperature Rise Current Typ.	DC Resistance Max.
MDTE4030-R47M	0.47	±20%	17.0	15.0	14.0	7.26
MDTE4030-R90M	0.90	±20%	10.0	9.00	11.2	10.1
MDTE4030-1ROM	1.00	±20%	9.80	9.20	11.0	10.1
MDTE4030-1R2M	1.20	±20%	9.20	8.70	9.80	11.5
MDTE4030-1R5M	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  $\triangle T=40^{\circ}C$ 



## Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.

Allowed time above 217 °C: 60~90 sec.

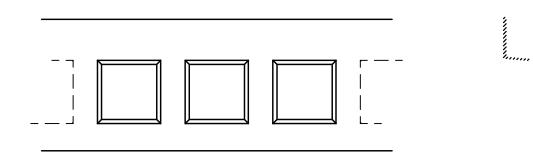
Max temperature: 260 °C.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

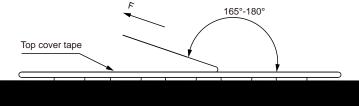
# Packaging Information:

## Tape Dimension:



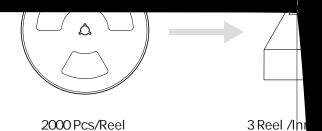
Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTE 4030	4.5± 0.1	4.5± 0.1	1.5± 0.1	4.0± 0.1	8.0± 0.1	12.0± 0.3	3.3± 0.1	1.75± 0.1	0.35± 0.05

## Peel force of top cover tape:



Marking Printing Inductance)	uctance)
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ton box(18K Pcs)

## Cautions and Warnings:

#### Storage Conditions:

- The storage period is within 12 months after the tions (temperature: -5 to 35°C, humidity: 75% RH terminal electrodes may deteriorate.
- Product should not be exposed to environment w etc.
- Products should be handled with care to avoid da
- Please always handle products carefully to prever removing.

#### Operation Instructions:

- Self heating (temperature increase) occurs when t for the set thermal design.
- Before soldering, be sure to preheat components. temperature difference between the solder temper
- Soldering corrections after mounting should be wit tions. If overheated, a short circuit, performance de
- Generally, Koher might not be familiar with either c does. As a result customer shall be responsible for performance described in the product specification not.

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