

## MDTE Series

### Wire Wound Molded SMD Power Inductors Size 1030



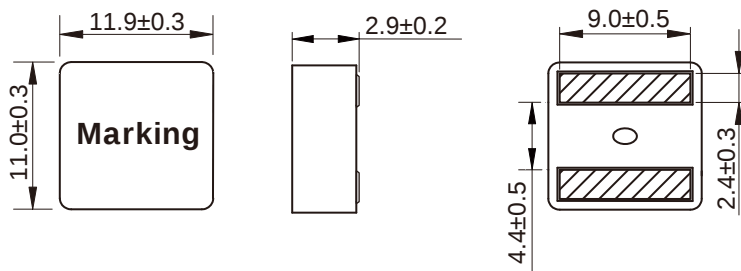
#### FEATURES

- 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: 1000pcs

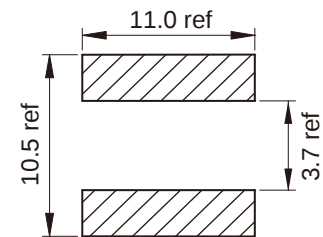
#### APPLICATION

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

Dimensions: [mm]



Land Pattern: [mm]



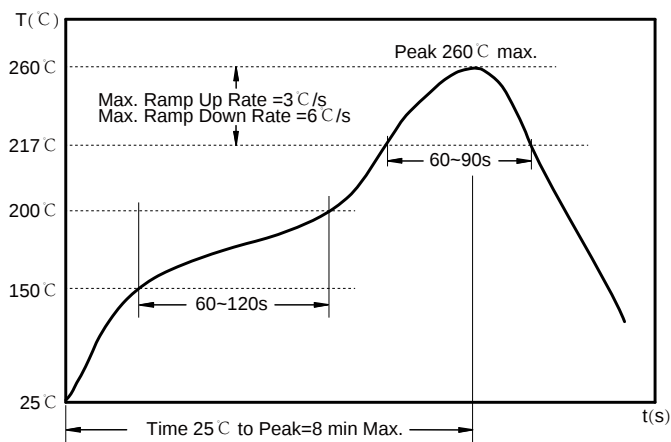
Electrical Properties:

| Part No       | Inductance<br>@ 100KHz/0.1V | Tolerance | Current<br>Typ. | Current<br>Max. | Temperature<br>Rise Current<br>Typ. | DC<br>Resistance<br>Max. |
|---------------|-----------------------------|-----------|-----------------|-----------------|-------------------------------------|--------------------------|
| MDTE1030-R28M | 0.28                        | ±20%      | 65.0            | 58.0            | 35.0                                | 1.60                     |
| MDTE1030-R56M | 0.56                        | ±20%      | 44.0            | 39.0            | 32.0                                | 2.75                     |
| MDTE1030-R82M | 0.82                        | ±20%      | 38.0            | 32.0            | 25.0                                | 4.10                     |
| MDTE1030-R90M | 0.90                        | ±20%      | 36.0            | 31.0            | 24.0                                | 4.20                     |
| MDTE1030-1R0M | 1.00                        | ±20%      | 35.0            | 30.0            | 23.0                                | 4.95                     |
| MDTE1030-1R5M | 1.50                        | ±20%      | 30.0            | 25.0            | 18.0                                | 6.60                     |

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.

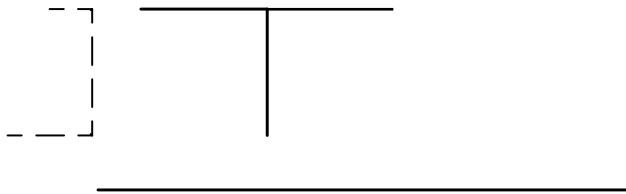
Max temperature: 260 °C .

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

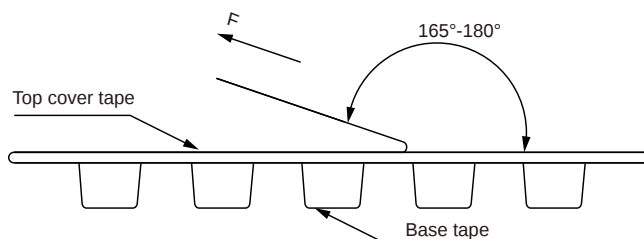
## Packaging Information:

### Tape Dimension :



| Series   | A0<br>(mm) | B0<br>(mm) | D<br>(mm) | P0<br>(mm) | P1<br>(mm) | W<br>(mm) | K0<br>(mm) | E<br>(mm) | T<br>(mm) |
|----------|------------|------------|-----------|------------|------------|-----------|------------|-----------|-----------|
| MDTE1030 | 12.4±0.1   | 11.5±0.1   | 1.5±0.1   | 4.0±0.1    | 16.0±0.1   | 24.0±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: