

**SURFACE MOUNT MOLDED TYPE  
POWER INDUCTOR SERIES MTPI0612**

## FEATURES

- Low profile
- High current handling capacity
- Low noise and low DCR
- High reliability and efficiency
- RoHS compliant plus Lead and Halogen free
- Magnetically shielded

## ELECTRICAL SPECIFICATIONS

- Inductance range      0.47uH to 10.0uH
- Test frequency        100 KHz with test level 1.0 V
- Test equipment        Quadtech 1910 L analyzer
- Rated current range    2.5 to 12.0 Amps
- Tolerance                 $\pm 20\%$
- Rated current            Refer to notes below

## PHYSICAL SPECIFICATIONS

- Operating temp.        -40°C to +125°C
- Core                      Mixed material
- Terminal construction   Solder plating
- Packaging                Box    6000 pieces per inner box  
                                  T & R   3000 pieces per reel
- Tape & reel spec.        Tape    16 mm embossed carrier  
                                  Reel    330 mm reel

## DIMENSIONS IN MILLIMETERS

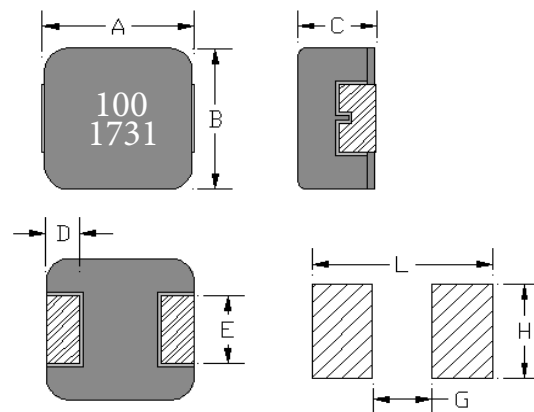
- Length A                 $7.0 \pm 0.3$
- Width B                  $6.6 \pm 0.3$
- Height C                 $1.0 \pm 0.2$
- Terminal width D        $1.8 \pm 0.3$
- Terminal length E       $2.5 \pm 0.3$

## SUGGESTED LAND PATTERN

- L = 7.7 mm ref.
- G = 2.5 mm ref.
- H = 3.0 mm ref.

## SPECIFICATIONS

Part Number	L ( $\mu$ H)	Tol % $\pm$	DCR max (m $\Omega$ )	Rated Current (A)	
				I <sub>rms</sub> <sup>(1)</sup>	I <sub>sat</sub> <sup>(2)</sup>
MTPI0612-R47M	0.47	20	17.0	8.5	12.0
MTPI0612-R68M	0.68	20	19.0	7.0	9.0
MTPI0612-1R0M	1.00	20	30.0	6.0	7.0
MTPI0612-2R2M	2.20	20	61.0	4.0	5.0
MTPI0612-3R3M	3.30	20	103.0	3.2	4.0
MTPI0612-4R7M	4.70	20	150.0	2.5	3.8
MTPI0612-6R8M	6.80	20	198.0	2.1	3.0
MTPI0612-100M	10.0	20	290.0	1.8	2.5



Notes:

- (1) Based on  $\Delta T$  approximately 40°C
- (2) L drops 20% typical

All test data based on 25°C ambient

Part temperature (ambient + temperature rise) must not exceed 125°C under worst case operating conditions.

Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.