

**SURFACE MOUNT MOLDED TYPE
POWER INDUCTOR SERIES MTPI0302**

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 1.6 to 9.0 Amps
- Tolerance $\pm 20\%$
- Rated current Refer to notes below

SPECIFICATIONS

Part Number	L (μ H)	Tol % $\pm$	DCR max (m Ω)	Rated Current (A)	
				I _{rms} ⁽¹⁾	I _{sat} ⁽²⁾
MTPI0302-R47M	0.47	20	23.0	7.0	9.0
MTPI0302-R68M	0.68	20	29.0	5.5	7.0
MTPI0302-1R0M	1.00	20	38.0	4.0	5.0
MTPI0302-2R2M	2.20	20	75.0	3.5	3.7
MTPI0302-3R3M	3.30	20	145.0	3.0	3.5
MTPI0302-4R7M	4.70	20	200.0	2.6	3.0
MTPI0302-5R6M	5.60	20	238.0	2.2	2.6
MTPI0302-6R8M	6.80	20	300.0	1.9	2.2
MTPI0302-8R2M	8.20	20	390.0	1.6	1.9
MTPI0302-100M	10.0	20	422.0	1.4	1.6

PHYSICAL SPECIFICATIONS

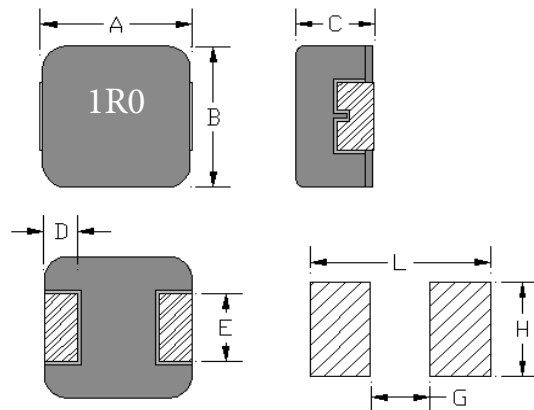
- Operating temp. -40°C to +125°C
- Core Mixed material
- Terminal construction Solder plating
- Packaging
 - Box 6000 pieces per inner box
 - T & R 3000 pieces per reel
- Tape & reel spec.
 - Tape 12 mm embossed carrier
 - Reel 330 mm reel

DIMENSIONS IN MILLIMETERS

- Length A 3.5 $\pm$ 0.2
- Width B 3.2 $\pm$ 0.2
- Height C 1.8 $\pm$ 0.2
- Terminal width D 0.7 $\pm$ 0.2
- Terminal length E 1.2 $\pm$ 0.2

SUGGESTED LAND PATTERN

- L = 4.1 mm ref.
- G = 1.9 mm ref.
- H = 1.45 mm ref.



Notes:

(1) Based on ΔT approximately 40°C

(2) L drops 30% 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.