

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

**FEATURES**

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

**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                ± 20%
- Rated current            Refer to notes below

**SPECIFICATIONS**

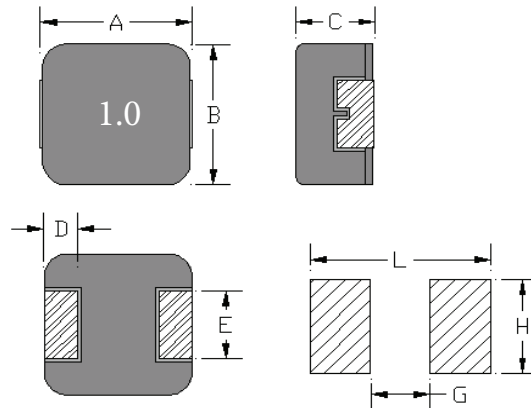
Part Number	L (μH)	Tol % ±	DCR max (mΩ)	Rated Current (A)	
				I <sub>rms</sub> <sup>(1)</sup>	I <sub>sat</sub> <sup>(2)</sup>
MTPI0302-R47M	0.47	20	23.0	7.0	9.0
MTPI0302-R68M	0.68	20	29.0	5.5	7.0
MTPI0302-1R0M	1.00	20	38.0	4.0	5.0
MTPI0302-2R2M	2.20	20	75.0	3.5	3.7
MTPI0302-3R3M	3.30	20	145.0	3.0	3.5
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 ± 0.2
- Width B                 3.2 ± 0.2
- Height C                1.8 ± 0.2
- Terminal width D      0.7 ± 0.2
- Terminal length E     1.2 ± 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.