

**SURFACE MOUNT MOLDED TYPE  
POWER INDUCTOR SERIES MTPI0402**

**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      0.33uH to 22.0uH
- Test frequency        100 KHz with test level 1.0 V
- Test equipment        Quadtech 1910 L analyzer
- Rated current range    1.4 to 18.0 Amps
- Tolerance                ± 20%
- Rated current            Refer to notes below

**PHYSICAL SPECIFICATIONS**

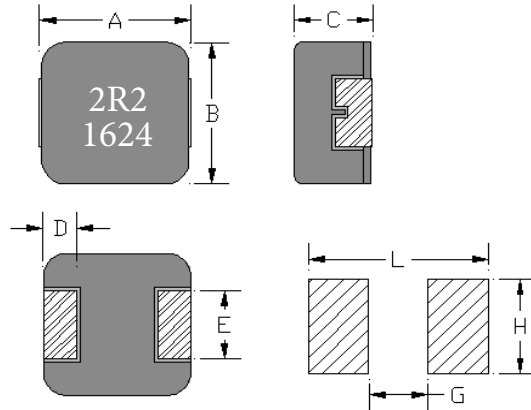
- Operating temp.        -40°C to +125°C
- Core                      Mixed material
- Terminal construction Solder plating
- Packaging                Box    6000 pieces per inner box  
                                  T & R   3000 pieces per reel
- Tape & reel spec.      Tape   12 mm embossed carrier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

**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>
MTPI0402-R33M	0.33	20	8.6	10.0	18.0
MTPI0402-R47M	0.47	20	14.0	8.0	12.0
MTPI0402-R56M	0.56	20	16.0	7.3	10.0
MTPI0402-R68M	0.68	20	19.0	7.0	10.0
MTPI0402-1R0M	1.00	20	27.0	5.0	8.5
MTPI0402-1R2M	1.20	20	30.0	4.8	7.8
MTPI0402-1R5M	1.50	20	42.0	4.5	7.0
MTPI0402-2R2M	2.20	20	61.0	4.0	6.0
MTPI0402-3R3M	3.30	20	76.0	3.5	4.0
MTPI0402-4R7M	4.70	20	105.0	2.6	3.5
MTPI0402-5R6M	5.60	20	125.0	2.2	3.0
MTPI0402-6R8M	6.80	20	172.0	2.1	2.8
MTPI0402-8R2M	8.20	20	180.0	2.0	2.5
MTPI0402-100M	10.0	20	243.0	1.8	2.3
MTPI0402-150M	15.0	20	374.0	1.5	1.9
MTPI0402-220M	22.0	20	500.0	1.2	1.4

**DIMENSIONS IN MILLIMETERS**

- Length A                    4.45 ± 0.25
- Width B                    4.06 ± 0.25
- Height C                    1.8 ± 0.2
- Terminal width D         0.76 ± 0.30
- Terminal length E         2.0 ± 0.20



**SUGGESTED LAND PATTERN**

- L = 5.2 mm ref.
- G = 2.2 mm ref.
- H = 2.4 mm ref.

Notes:

- (1) Based on ΔT 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.