

**SURFACE MOUNT MOLDED TYPE  
POWER INDUCTOR SERIES MTPI0603**

**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      0.10uH to 10.0uH
- Test frequency        100 KHz with test level 1.0 V
- Test equipment        Quadtech 1910 L analyzer
- Rated current range    6.0 to 60.0 Amps
- Tolerance                ± 20%
- Rated current            Refer to notes below

**PHYSICAL SPECIFICATIONS**

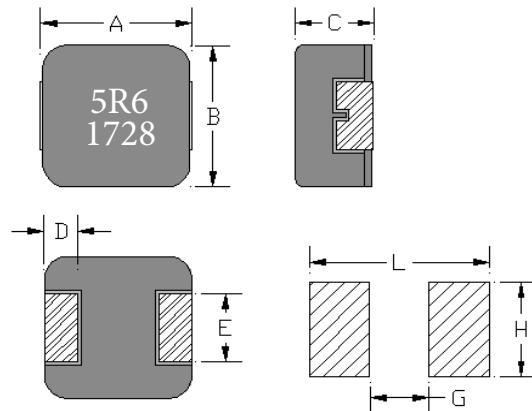
- Operating temp.        -40°C to +125°C
- Core                      Mixed material
- Terminal construction Solder plating
- Packaging                Box    2000 pieces per inner box  
                                  T & R 1000 pieces per reel
- Tape & reel spec.      Tape 16 mm embossed carrier  
                                  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>
MTPI0603-R10N	0.10	30	1.7	32.5	60.0
MTPI0603-R22N	0.22	30	2.8	23.0	40.0
MTPI0603-R47M	0.47	20	4.2	17.5	26.0
MTPI0603-R68M	0.68	20	5.5	15.5	25.0
MTPI0603-1R0M	1.00	20	10.0	11.0	22.0
MTPI0603-2R2M	2.20	20	20.0	8.0	14.0
MTPI0603-3R3M	3.30	20	30.0	6.0	13.5
MTPI0603-4R7M	4.70	20	40.0	5.5	10.0
MTPI0603-5R6M	5.60	20	48.0	5.0	9.0
MTPI0603-6R8M	6.80	20	60.0	4.5	8.0
MTPI0603-100M	10.0	20	85.0	3.5	6.0

**DIMENSIONS IN MILLIMETERS**

- Length A                    7.3 ± 0.3
- Width B                    6.6 ± 0.3
- Height C                    2.8 ± 0.2
- Terminal width D         1.8 ± 0.3
- Terminal length E        3.0 ± 0.3



**SUGGESTED LAND PATTERN**

- L = 8.4 mm ref.
- G = 2.5 mm ref.
- H = 3.5 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.