

**SURFACE MOUNT MOLDED TYPE  
POWER INDUCTOR SERIES MTPI0604**

**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      0.12uH to 10.0uH
- Test frequency        100 KHz with test level 1.0 V
- Test equipment        Quadtech 1910 L analyzer
- Rated current range    7.0 to 64.0 Amps
- Tolerance                ± 20% (M) and ± 30% (N)
- Rated current            Refer to notes below

**PHYSICAL SPECIFICATIONS**

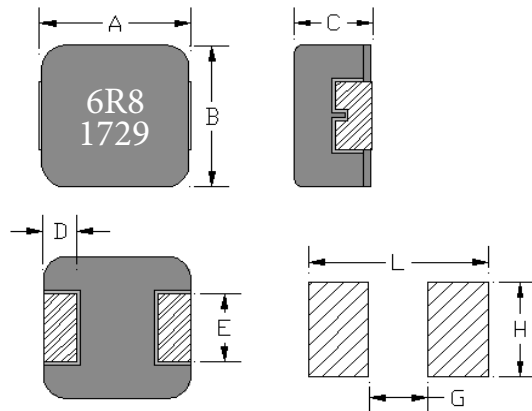
- Operating temp.        -40°C to +125°C
- Core                      Mixed material
- Terminal construction Solder plating
- Packaging                Box    2000 pieces per inner box  
                                  T & R 1000 pieces per reel
- Tape & reel spec.      Tape 16 mm embossed carrier  
                                  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> |
| MTPI0604-R12N | 0.12   | 30      | 1.0          | 32.0                            | 64.0                            |
| MTPI0604-R15N | 0.15   | 30      | 1.2          | 30.0                            | 55.0                            |
| MTPI0604-R47M | 0.47   | 20      | 3.4          | 23.0                            | 28.0                            |
| MTPI0604-R68M | 0.68   | 20      | 4.5          | 16.0                            | 24.0                            |
| MTPI0604-1R0M | 1.00   | 20      | 8.0          | 14.0                            | 22.0                            |
| MTPI0604-1R5M | 1.50   | 20      | 12.0         | 12.0                            | 20.0                            |
| MTPI0604-2R2M | 2.20   | 20      | 14.0         | 9.0                             | 14.0                            |
| MTPI0604-3R3M | 3.30   | 20      | 27.0         | 8.0                             | 12.0                            |
| MTPI0604-4R7M | 4.70   | 20      | 32.5         | 6.0                             | 11.0                            |
| MTPI0604-5R6M | 5.60   | 20      | 38.0         | 5.0                             | 9.0                             |
| MTPI0604-6R8M | 6.80   | 20      | 50.0         | 4.5                             | 8.5                             |
| MTPI0604-8R2M | 8.20   | 20      | 64.0         | 4.5                             | 8.0                             |
| MTPI0604-100M | 10.0   | 20      | 72.0         | 4.0                             | 7.0                             |

**DIMENSIONS IN MILLIMETERS**

- Length A                    7.3 ± 0.3
- Width B                    6.6 ± 0.3
- Height C                    3.8 ± 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 rise
- (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.