

**SURFACE MOUNT MOLDING TYPE  
POWER INDUCTOR SERIES MTPI0518**

**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    2.8 to 14.0 Amps
- Tolerance                ± 20%
- Rated current            Refer to notes below

**PHYSICAL SPECIFICATIONS**

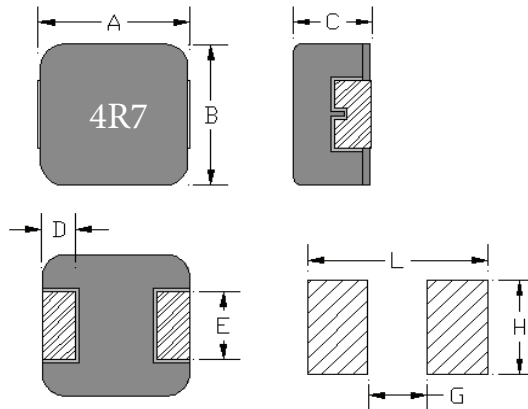
- Operating temp.        -40°C to +125°C
- Core                      Mixed material
- Terminal construction Solder plating
- Packaging                Box    6000 pieces per inner box  
                                  T & R 3000 pieces per reel
- Tape & reel spec.      Tape 12 mm embossed carrier  
                                  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>
MTPI0518-R47M	0.47	20	11.3	10.0	14.0
MTPI0518-R68M	0.68	20	14.3	9.0	13.0
MTPI0518-1R0M	1.00	20	21.0	6.8	10.0
MTPI0518-2R2M	2.20	20	48.3	4.5	7.5
MTPI0518-3R3M	3.30	20	69.0	3.5	5.0
MTPI0518-4R7M	4.70	20	98.0	3.0	4.5
MTPI0518-5R6M	5.60	20	127.0	2.5	4.0
MTPI0518-6R8M	6.80	20	137.0	2.4	3.5
MTPI0518-100M	10.0	20	190.0	2.3	2.8

**DIMENSIONS IN MILLIMETERS**

- Length A                    5.7 ± 0.3
- Width B                    5.2 ± 0.2
- Height C                    1.6 ± 0.2
- Terminal width D         1.1 ± 0.3
- Terminal length E        2.5 ± 0.3



**SUGGESTED LAND PATTERN**

- L = 6.2 mm ref.
- G = 2.2 mm ref.
- H = 2.8 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.