

**SURFACE MOUNT MOLDED TYPE
POWER INDUCTOR SERIES MTPI1005**

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 0.30uH to 10.0uH
- Test frequency 100 KHz with test level 1.0 V
- Test equipment Quadtech 1910 L analyzer
- Rated current range 13.5 to 65.0 Amps
- Tolerance ± 20% (M)
- Rated current Refer to notes below

SPECIFICATIONS

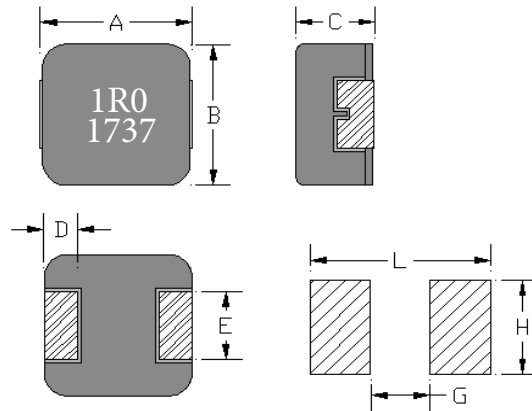
Part Number	L (μH)	Tol % ±	DCR max (mΩ)	Rated Current (A)	
				I _{rms} ⁽¹⁾	I _{sat} ⁽²⁾
MTPI1005-R30M	0.30	20	0.61	38.0	65.0
MTPI1005-1R0M	1.00	20	3.5	22.0	30.0
MTPI1005-1R2M	1.20	20	3.5	20.0	28.0
MTPI1005-1R3M	1.30	20	3.7	20.0	28.0
MTPI1005-1R5M	1.50	20	4.1	19.0	27.0
MTPI1005-2R2M	2.20	20	6.0	16.0	24.0
MTPI1005-3R3M	3.30	20	10.4	14.0	22.0
MTPI1005-8R2M	8.20	20	24.0	9.0	14.5
MTPI1005-100M	10.0	20	29.0	8.0	13.5

PHYSICAL SPECIFICATIONS

- Operating temp. -40°C to +125°C
- Core Mixed material
- Terminal construction Solder plating
- Packaging Box 1000 pieces per inner box
 T & R 500 pieces per reel
- Tape & reel spec. Tape 24 mm embossed carrier
 Reel 330 mm reel

DIMENSIONS IN MILLIMETERS

- Length A 11.0 ± 0.5
- Width B 10.0 ± 0.3
- Height C 4.8 ± 0.2
- Terminal width D 2.3 ± 0.3
- Terminal length E 3.0 ± 0.3



SUGGESTED LAND PATTERN

- L = 13.6 mm ref.
- G = 5.4 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.