SURFACE MOUNT MOLDED TYPE POWER INDUCTOR SERIES MTPI0312

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 1.4 to 7.2 Amps
- Tolerance ± 20% (M)
- Rated current Refer to notes below

PHYSICAL SPECIFICATIONS

- Operating temp. -40ºC to +125ºC
- Core Mixed material
- Terminal construction Solder plating
- Packaging Box 8000 pieces per inner box
  T & R 4000 pieces per reel
- Tape & reel spec. Tape 12 mm embossed carrier
  Reel 330 mm reel

DIMENSIONS IN MILLIMETERS

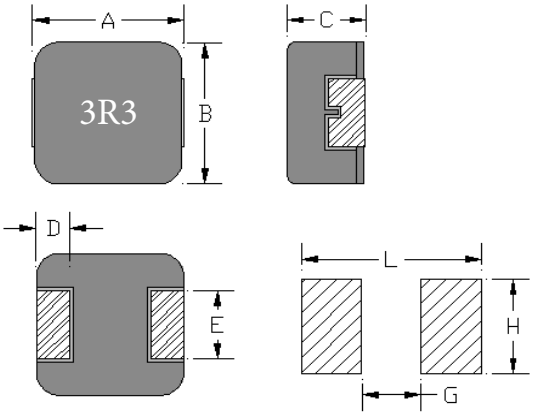
- Length A 3.5 ± 0.2
- Width B 3.2 ± 0.2
- Height C 1.0 ± 0.2
- Terminal width D 0.7 ± 0.2
- Terminal length E 1.2 ± 0.2

SUGGESTED LAND PATTERN

- L = 4.1 mm ref.
- G = 1.9 mm ref.
- H = 1.45 mm ref.

SPECIFICATIONS

Part Number	L (µH)	Tol % ±	DCR max (mΩ)	Rated Current (A)	
				I_{rms} (1)	I_{sat} (2)
MTPI0312-R47M	0.47	20	30.0	5.0	7.2
MTPI0312-R56M	0.56	20	36.0	4.5	6.6
MTPI0312-R68M	0.68	20	40.0	4.0	6.1
MTPI0312-R82M	0.82	20	48.0	3.5	5.8
MTPI0312-1R0M	1.00	20	60.0	3.3	5.5
MTPI0312-1R5M	1.50	20	85.0	3.0	4.0
MTPI0312-2R2M	2.20	20	115.0	2.7	3.4
MTPI0312-3R3M	3.30	20	210.0	2.0	3.1
MTPI0312-4R7M	4.70	20	293.0	1.6	2.8
MTPI0312-5R6M	5.60	20	360.0	1.5	2.2
MTPI0312-6R8M	6.80	20	400.0	1.4	2.0
MTPI0312-8R2M	8.20	20	463.0	1.2	1.7
MTPI0312-100M	10.0	20	550.0	1.0	1.4



Notes:
(1) Based on ΔT approximately 40°C rise
(2) L drops 30% typical

All test data based on 25°C ambient
Part temperature (ambient + temperature rise) must not exceed 125°C under worst case operating contions.
Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.