

**SURFACE MOUNT MOLDED TYPE
POWER INDUCTOR SERIES MTPI0412**

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 1.4 to 25.0 Amps
- Tolerance $\pm 20\%$ (M) and $\pm 30\%$ (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 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

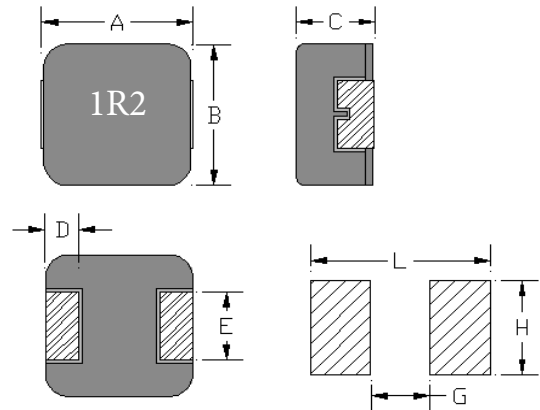
- Length A 4.45 $\pm$ 0.25
- Width B 4.06 $\pm$ 0.25
- Height C 1.0 $\pm$ 0.20
- Terminal width D 0.76 $\pm$ 0.30
- Terminal length E 2.0 $\pm$ 0.20

SUGGESTED LAND PATTERN

- L = 5.2 mm ref.
- G = 2.2 mm ref.
- H = 2.3 mm ref.

SPECIFICATIONS

Part Number	L (μ H)	Tol % $\pm$	DCR max (m Ω)	Rated Current (A)	
				I _{rms} ⁽¹⁾	I _{sat} ⁽²⁾
MTPI0412-R10N	0.10	30	5.5	11.5	25.0
MTPI0412-R22M	0.22	20	8.0	8.5	20.0
MTPI0412-R36M	0.36	20	18.0	6.5	8.5
MTPI0412-R47M	0.47	20	20.0	6.0	6.5
MTPI0412-R60M	0.60	20	26.0	5.3	6.0
MTPI0412-1R0M	1.00	20	47.0	4.0	6.0
MTPI0412-1R2M	1.20	20	56.0	3.5	5.0
MTPI0412-1R5M	1.50	20	63.3	3.0	4.0
MTPI0412-2R2M	2.20	20	80.0	2.8	3.5
MTPI0412-3R3M	3.30	20	97.0	2.3	3.0
MTPI0412-4R7M	4.70	20	145.0	2.0	2.5
MTPI0412-5R6M	5.60	20	208.0	1.7	2.3
MTPI0412-6R8M	6.80	20	360.0	1.5	1.7
MTPI0412-8R2M	8.20	20	376.0	1.4	1.6
MTPI0412-100M	10.0	20	463.0	1.3	1.4



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.