

**SURFACE MOUNT MOLDED TYPE  
POWER INDUCTOR SERIES MTPI1235**

**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    14.0 to 84.0 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    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**

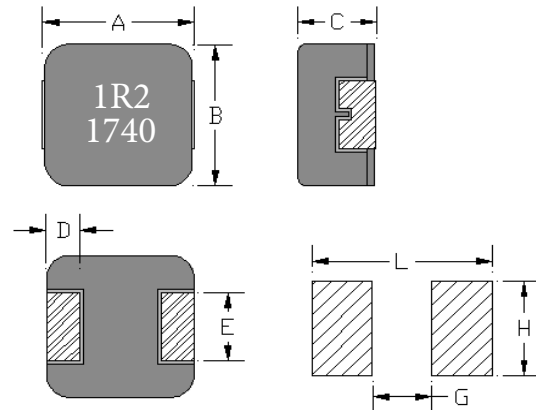
- Length A                13.5 ± 0.5
- Width B                 12.5 ± 0.3
- Height C                3.3 ± 0.2
- Terminal width D      2.3 ± 0.3
- Terminal length E     3.0 ± 0.3

**SUGGESTED LAND PATTERN**

- L = 14.2 mm ref.
- G = 8.0 mm ref.
- H = 3.3 mm ref.

**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>
MTPI1235-R10N	0.10	30	0.43	43.0	84.0
MTPI1235-R15N	0.15	30	0.48	41.0	75.0
MTPI1235-R22M	0.22	20	0.81	38.5	65.0
MTPI1235-R33M	0.33	20	1.0	36.5	62.0
MTPI1235-R47M	0.47	20	1.8	32.0	55.0
MTPI1235-R60M	0.60	20	2.2	29.0	51.0
MTPI1235-R67M	0.67	20	2.5	28.0	49.0
MTPI1235-R68M	0.68	20	2.5	28.0	49.0
MTPI1235-R82M	0.82	20	3.0	25.0	44.0
MTPI1235-1R0M	1.00	20	3.5	24.0	40.0
MTPI1235-1R2M	1.20	20	4.0	21.0	37.0
MTPI1235-1R5M	1.50	20	5.5	19.0	35.0
MTPI1235-1R8M	1.80	20	7.0	17.0	30.0
MTPI1235-2R2M	2.20	20	8.0	16.0	29.0
MTPI1235-3R3M	3.30	20	13.5	12.0	27.0
MTPI1235-4R7M	4.70	20	18.5	10.0	24.0
MTPI1235-5R6M	5.60	20	22.0	9.5	19.0
MTPI1235-6R8M	6.80	20	24.0	9.0	18.0
MTPI1235-8R2M	8.20	20	28.0	8.5	16.0
MTPI1235-100M	10.0	20	34.0	7.0	14.0



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.