# SURFACE MOUNT MOLDED TYPE POWER INDUCTOR SERIES MTPI1005

**SPECIFICATIONS** 

Part

Number

MTPI1005-R30M

MTPI1005-1R0M

MTPI1005-1R2M

MTPI1005-1R3M

MTPI1005-1R5M

MTPI1005-2R2M

MTPI1005-3R3M

MTPI1005-8R2M

MTPI1005-100M

L

( µH )

0.30

1.00

1.20

1.30

1.50

2.20

3.30

8.20

10.0

Tol

%

 $\pm$ 

20

20

20

20

20

20

20

20

20

**DCR** 

max

 $(m\Omega)$ 

0.61

3.5

3.5

3.7

4.1

6.0

10.4

24.0

29.0

Rated

Current (A)

 $I_{sat}^{\ (2)}$ 

65.0

30.0

28.0

28.0

27.0

24.0

22.0

14.5

13.5

 $I_{rms}^{(1)}$ 

38.0

22.0

20.0

20.0

19.0

16.0

14.0

9.0

8.0

## **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 0.30uH to 10.0uH

Test frequency
Test equipment
100 KHz with test level 1.0 V
Quadtech 1910 L analyzer

- Rated current range 13.5 to 65.0 Amps - Tolerance ± 20% (M)

- Rated current Refer to notes below

# PHYSICAL SPECIFICATIONS

Operating temp.
Core
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

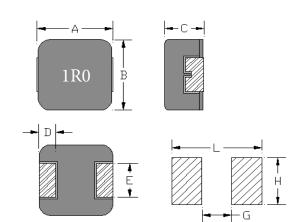
Reel 330 mm reel

#### **DIMENSIONS IN MILLIMETERS**

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

## 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 contions. Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.