

SMD Mini Power Inductor – MPI



Applications

- LCD televisions.
- Personal computers.
- Handhold communication.
- DC/DC converters, etc.

Inductance and rated current ranges

- MPI0610 1.2~330 μ H 2.1~0.13A
- MPI0612 1.2~100 μ H 1.8~0.23A
- MPI0620 1.0~1000 μ H 2.5~0.08A
- MPI0915 4.7~1000 μ H 1.6~0.10A

- Test equipment:

L: HP4263B , Zentech301A

DCR tested by Milli-ohm meter.

Electrical specifications at 25°C.

Test frequency 100 KHz , 0.1Vrms

Features

- Very low profile.
- Constructed enclosed in a rugged to provide optimum pick and place operations.
- High inductance & high current ultra low profile power inductors.

Product Identification

MPI 0610 M I 101

(1) (2) (3) (4) (5)

(1)Type: SMD Mini Power Inductors

(2)Dimensions(mm):0610=6.5×5.3×1.0 0612=6.5×5.3×1.2

0620=6.5×5.3×2.0 0915=10×9.0×5.4

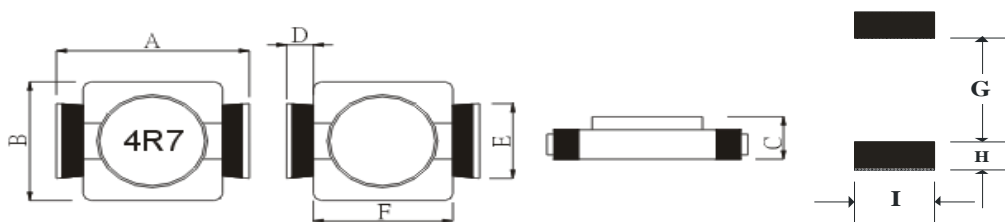
(3)Tolerance: M=20%

(4)Packaging style: T (Tape and Reel)

(5)Inductance:1R1=1.1 μ H, 470=47 μ H, 101 =100 μ H

Dimensions

MPI 0610/0612/0620



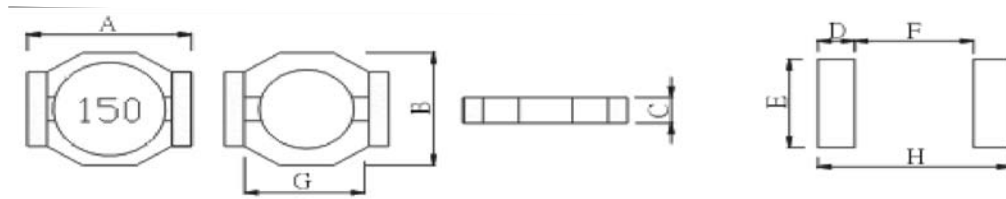
Unit: mm

| Codes | A (max) | B | C (max) | D | E | F | G | H | I |
|---------|---------|---------|---------|-----|-----|-----|-----|-----|-----|
| MPI0610 | 6.5 | 5.3±0.3 | 1.0 | 0.9 | 3.0 | 4.5 | 4.0 | 1.5 | 3.4 |
| MPI0612 | 6.5 | 5.3±0.3 | 1.2 | 0.9 | 3.0 | 4.5 | 4.0 | 1.5 | 3.4 |
| MPI0620 | 6.5 | 5.3±0.3 | 2.0 | 0.9 | 3.0 | 4.5 | 4.0 | 1.5 | 3.4 |

SMD Mini Power Inductor – MPI

Dimensions

MPI 0915



| Codes | A (max) | B (max) | C (max) | D | E | F | G (max) | H |
|---------|------------|------------|------------|------|------|------|------------|------|
| MPI0915 | 9.30 | 7.87 | 1.55 | 1.21 | 5.84 | 7.24 | 7.24 | 9.65 |

Electrical Characteristics

0610 TYPE

| Part No. | L (μ H) | DCR max (Ω) | I DC (A) |
|--------------|-----------------|-------------------------|-------------|
| MPI0610MT1R2 | 1.2 | 0.08 | 2.1 |
| MPI0610MT1R5 | 1.5 | 0.10 | 1.9 |
| MPI0610MT2R2 | 2.2 | 0.12 | 1.6 |
| MPI0610MT3R3 | 3.3 | 0.16 | 1.3 |
| MPI0610MT4R7 | 4.7 | 0.20 | 1.1 |
| MPI0610MT6R8 | 6.8 | 0.32 | 0.9 |
| MPI0610MT100 | 10 | 0.41 | 0.8 |
| MPI0610MT150 | 15 | 0.65 | 0.65 |
| MPI0610MT220 | 22 | 0.85 | 0.50 |
| MPI0610MT330 | 33 | 1.30 | 0.40 |
| MPI0610MT470 | 47 | 1.80 | 0.35 |
| MPI0610MT680 | 68 | 2.50 | 0.30 |
| MPI0610MT101 | 100 | 3.50 | 0.25 |
| MPI0610MT151 | 150 | 6.50 | 0.18 |
| MPI0610MT221 | 220 | 8.50 | 0.16 |
| MPI0610MT331 | 330 | 15.0 | 0.13 |

0612 TYPE

| Part No. | L (μ H) | DCR max (Ω) | I DC (A) |
|--------------|-----------------|-------------------------|-------------|
| MPI0612MT1R2 | 1.2 | 0.060 | 1.80 |
| MPI0612MT2R2 | 2.2 | 0.125 | 1.20 |
| MPI0612MT3R3 | 3.3 | 0.155 | 0.96 |
| MPI0612MT4R7 | 4.7 | 0.206 | 0.90 |
| MPI0612MT6R8 | 6.8 | 0.240 | 0.80 |
| MPI0612MT100 | 10 | 0.370 | 0.70 |
| MPI0612MT150 | 15 | 0.460 | 0.60 |
| MPI0612MT180 | 18 | 0.580 | 0.56 |
| MPI0612MT220 | 22 | 0.668 | 0.50 |
| MPI0612MT270 | 27 | 0.950 | 0.45 |
| MPI0612MT330 | 33 | 1.100 | 0.42 |
| MPI0612MT390 | 39 | 1.280 | 0.38 |
| MPI0612MT470 | 47 | 1.380 | 0.34 |
| MPI0612MT560 | 56 | 1.700 | 0.30 |
| MPI0612MT680 | 68 | 2.100 | 0.28 |
| MPI0612MT820 | 82 | 2.700 | 0.26 |
| MPI0612MT101 | 100 | 3.100 | 0.235 |

1. Rated Current (I sat): The DC current when the inductance becomes 90% lower than its initial value. (Ta=25°C).
2. Operating temperature range -30 ~ +100°C