

SMD Mini Power Inductor - MPI Series

Applications

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

Inductance and rated current ranges

- MPI0610 1.2~330μH 2.1~0.13A
- MPI0612 1.2~100μH 1.8~0.23A
- MPI0620 1.0~1000μH 2.5~0.08A
- MPI0915 4.7~1000μH 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 T 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

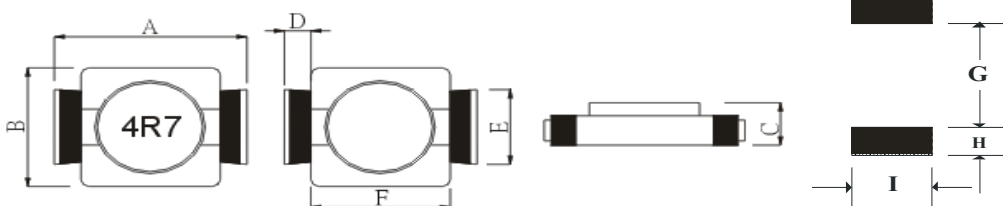
(3)Tolerance: M=20%

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

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

Dimensions

MPI 0610/0612/0620



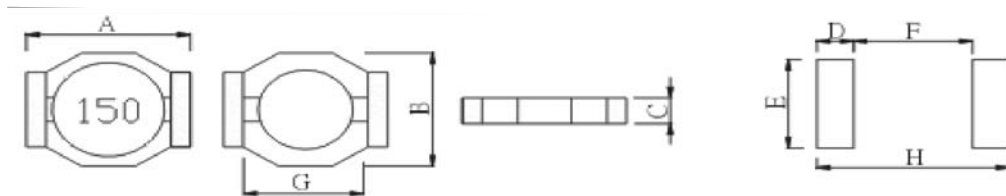
Unit: mm

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 Series

Dimensions

MPI 0915



Codes	A (max)	B (max)	C (max)	D	E	F	G (max)	H
MPI0915	9.14	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 -40 ~ +105°C

SMD Mini Power Inductor - MPI Series

Electrical Characteristics

0620 TYPE

Part No.	L (μ H)	DCR max (Ω)	I DC (A)
MPI0620MT1R0	1.0	0.04	2.5
MPI0620MT1R5	1.5	0.06	2.2
MPI0620MT2R2	2.2	0.07	1.8
MPI0620MT3R3	3.3	0.10	1.4
MPI0620MT4R7	4.7	0.12	1.2
MPI0620MT6R8	6.8	0.19	1.1
MPI0620MT100	10	0.30	1.0
MPI0620MT150	15	0.40	0.8
MPI0620MT220	22	0.54	0.6
MPI0620MT330	33	0.74	0.5
MPI0620MT470	47	1.10	0.45
MPI0620MT680	68	1.60	0.35
MPI0620MT101	100	2.30	0.30
MPI0620MT151	150	3.20	0.25
MPI0620MT221	220	5.70	0.20
MPI0620MT331	330	8.20	0.16
MPI0620MT471	470	10.8	0.14
MPI0620MT681	680	17.2	0.12
MPI0620MT102	1000	22.6	0.08

1. Rated Current (I sat): The DC current when the inductance becomes 90% lower then its initial value. (Ta=25°C).
2. Operating temperature range -40 ~ +105°C

0915 TYPE

Part No.	L (μ H)	DCR max (Ω)	I sat (A)	I rms (A)
MPI0915MT4R7	4.7	0.145	1.60	1.90
MPI0915MT6R8	6.8	0.165	1.30	1.55
MPI0915MT100	10	0.240	1.00	1.30
MPI0915MT150	15	0.300	0.90	1.06
MPI0915MT220	22	0.420	0.70	0.88
MPI0915MT330	33	0.550	0.60	0.70
MPI0915MT470	47	0.765	0.50	0.60
MPI0915MT680	68	1.100	0.40	0.50
MPI0915MT101	100	1.600	0.30	0.41
MPI0915MT151	150	2.500	0.25	0.33
MPI0915MT221	220	3.650	0.22	0.28
MPI0915MT331	330	4.650	0.18	0.22
MPI0915MT471	470	6.750	0.14	0.19
MPI0915MT681	680	9.150	0.12	0.15
MPI0915MT102	1000	14.20	0.10	0.13

1. Rated Current (I sat): The DC current when the inductance becomes 90% lower then its initial value. (Ta=25°C).
2. Temperature Rise Current (I rms): The actual current when temperature of coil becomes $\Delta 40^{\circ}\text{C}$. (Ta=25°C)
3. Operating temperature range -40 ~ +105°C