

# SMT Power Inductor (MOLDING TYPE)

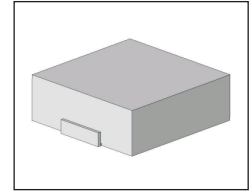
## MPC Type

### Features

- RoHS compliant.
- Low profile, high current SMD type.
- Frequency range up to 1MHz.
- Lowest DCR/ $\mu$ H, in this package size.
- Low buzz noise due to its gap-less structure.

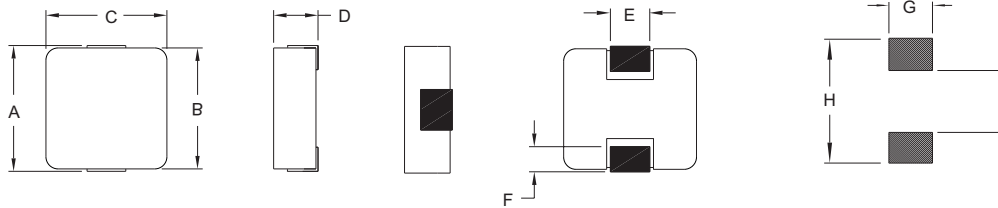
### Applications

- Notebook/Desktop/Server/Video Card applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- Ideal for power source circuits, DC-DC converter.
- DC-AC inverters inductor application.



### Mechanical Dimension:

### RECOMMENDED PAD PATTERNS



UNIT : mm

Part Series	A	B	C	D	E	F	G	H	I
MPC7X	7.70 Max.	6.70 $\pm$ 0.3	6.70 $\pm$ 0.3	3.00 Max.	3.00 $\pm$ 0.3	2.00 $\pm$ 0.3	3.60	8.70	3.50
MPC10X	11.50 Max.	10.00 $\pm$ 0.3	10.00 $\pm$ 0.3	4.00 Max.	3.00 $\pm$ 0.3	2.30 $\pm$ 0.3	4.00	13.00	6.00
MPC13X	14.00 Max.	12.90 $\pm$ 0.3	12.90 $\pm$ 0.3	6.50 Max.	4.70 $\pm$ 0.3	2.30 $\pm$ 0.3	5.50	15.00	7.80

### Electrical Characteristics: At 25°C: 100KHz, 0.25V

PART NO.	L0 ( $\mu$ H)	DCR (m $\Omega$ ) TYP.	DCR (m $\Omega$ ) MAX.	Isat <sup>1</sup> (Adc)	I <sub>r</sub> <sup>2</sup> (Adc)
MPC730R68M1	0.68 $\pm$ 20%	5.0	5.5	25.0	15.5
MPC730R82M1	0.82 $\pm$ 20%	6.8	8.0	24.0	13.0
MPC7301R0M1	1.00 $\pm$ 20%	8.0	10.0	23.0	11.0
MPC7301R5M1	1.50 $\pm$ 20%	13.0	15.0	18.0	9.0
MPC7302R2M1	2.20 $\pm$ 20%	18.0	20.0	15.0	8.0
MPC7303R3M1	3.30 $\pm$ 20%	28.0	30.0	14.0	6.0
MPC7304R7M1	4.70 $\pm$ 20%	37.0	40.0	10.0	5.5
MPC7306R8M1	6.80 $\pm$ 20%	54.0	60.0	8.0	4.5
MPC10402R2M1	2.20 $\pm$ 20%	8.5	9.4	30.0	13.0
MPC10403R3M1	3.30 $\pm$ 20%	11.7	12.8	19.0	9.0
MPC10404R7M1	4.70 $\pm$ 20%	15.0	16.5	14.0	8.5
MPC10405R6M1	5.60 $\pm$ 20%	17.4	19.2	12.0	8.0
MPC13652R2M1	2.20 $\pm$ 20%	3.7	4.5	40.0	17.0
MPC13653R3M1	3.30 $\pm$ 20%	6.0	7.0	35.0	16.0
MPC13654R7M1	4.70 $\pm$ 20%	9.5	11.5	30.0	13.0
MPC13655R6M1	5.60 $\pm$ 20%	11.5	13.2	19.0	11.0
MPC13656R8M1	6.80 $\pm$ 20%	14.5	16.5	17.0	10.0
MPC13658R2M1	8.20 $\pm$ 20%	15.0	17.0	16.5	9.0
MPC1365100M1	10.00 $\pm$ 20%	17.0	18.8	16.0	8.5

1. Isat is the DC current which cause the inductance drop approximately 30% of its nominal inductance without current.
2. Ir is the DC current which cause the surface temperature of the part increase approximately 40°C
3. Operating temperature range : -55°C to 125°C
4. Ambient temperature, Maximum : 85°C.



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