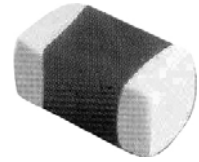


# Multilayer Chip Power Inductor – MCL-A Series

Operating Temp. : -40°C~+125°C



## FEATURES

- Monolithic structure for high reliability
- Excellent solderability and high heat resistance
- No cross coupling due to magnetic shield
- High DC bias current due to developed material
- Low DC resistance

## APPLICATIONS

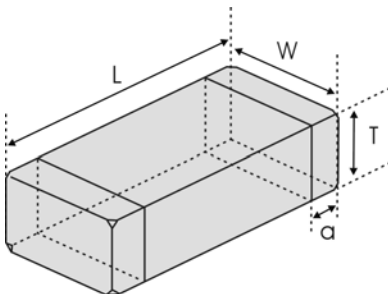
- DC-DC converter circuits for mobile phones, wearable devices, DVCs, HDDs, etc.

## PRODUCT IDENTIFICATION

<u>MCL</u>	<u>2012</u>	<u>A</u>	<u>2R2</u>	<u>M</u>	<u>T</u>																		
①	②	③	④	⑤	⑥																		
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## SHAPE AND DIMENSIONS

Unit: mm [inch]



Type	L	W	T	a
MCL2012-A [0805]	2.0 (+0.3, -0.1) [.079 (+.012, -.004)]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]
MCL2016-A [0806]	2.0 (+0.3, -0.1) [.079 (+.012, -.004)]	1.6±0.2 [.063±.008]	0.9±0.1 [.035±.004]	0.5±0.3 [.020±.012]
MCL2520-A [1008]	2.5±0.2 [.098±.008]	2.0(+0.3, -0.1) [.079(+.012, -.004)]	0.9±0.1 [.035±.004]	0.5±0.3 [.020±.012]

## SPECIFICATIONS

### MCL2012A TYPE

Part Number	Inductance	L Test Freq. L	DC Resistance	Min. Self-resonant Frequency	Saturation Current Typ.	Heat Rating Current Max.
Units	μH	MHz	Ω	MHz	mA	mA
Symbol	L	Freq.	DCR	S.R.F	Isat	Irms
MCL2012A2R2MT	2.2	1	0.18±25%	50	300	1300
MCL2012A4R7MT	4.7	1	0.30±25%	60	180	850

### MCL2016A TYPE

Part Number	Inductance	L Test Freq. L	DC Resistance	Min. Self-resonant Frequency	Saturation Current Typ.	Heat Rating Current Max.
Units	μH	MHz	Ω	MHz	mA	mA
Symbol	L	Freq.	DCR	S.R.F	Isat	Irms
MCL2016A1R0MT	1.0	1	0.14±25%	120	900	1100
MCL2016A2R2MT	2.2	1	0.22±25%	70	600	850

### MCL2520A TYPE

Part Number	Inductance	L Test Freq. L	DC Resistance	Min. Self-resonant Frequency	Saturation Current Typ.	Heat Rating Current Max.
Units	μH	MHz	Ω	MHz	mA	mA
Symbol	L	Freq.	DCR	S.R.F	Isat	Irms
MCL2520A2R2MT	2.2	1	0.13±25%	70	500	1400
MCL2520A4R7MT	4.7	1	0.28±25%	45	250	950

※Rated current: Isat or Irms, whichever is smaller;

※Isat: DC current at which the inductance drops approximate 30% from its value without current;

※Irms : DC current that causes the temperature rise ( $\Delta T = 40^{\circ}\text{C}$ ) from  $20^{\circ}\text{C}$  ambient.

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[MLZ1608M150WTD25](#) [MLZ1608M3R3WTD25](#) [MLZ1608M3R3WT000](#) [MLZ1608M150WT000](#) [MLZ1608A1R5WT000](#)  
[MLZ1608N1R5LT000](#) [B82432C1333K000](#) [PCMB053T-1R0MS](#) [PCMB053T-1R5MS](#) [PCMB104T-1R5MS](#) [CR32NP-100KC](#) [CR32NP-151KC](#) [CR32NP-180KC](#) [CR32NP-181KC](#) [CR32NP-1R5MC](#) [CR32NP-390KC](#) [CR32NP-3R9MC](#) [CR32NP-680KC](#) [CR32NP-820KC](#)  
[CR32NP-8R2MC](#) [CR43NP-390KC](#) [CR43NP-560KC](#) [CR43NP-680KC](#) [CR54NP-181KC](#) [CR54NP-470LC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#)  
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