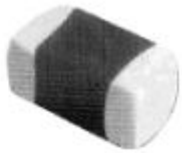
Multilayer Chip Inductor for Choke – MCL Series

Operating Temp. : -40℃~+85℃



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

- Choke circuits in DC power line of consumer electronics such as personal computers, mobile phones, digital cameras, digital video cameras, and music players

PRODUCT IDENTIFICATION

MCL	1608	S	1R0	M	T
①	②	③	④	⑤	⑥

①

Type	
MCL	Chip Inductor for Choke

②

External Dimensions (L×W) (mm)	
1608 [0603]	1.6×0.8
2012 [0805]	2.0×1.25

③

Feature Type	
S	Standard
H	Ir-Improved

④

Nominal Inductance	
Example	Nominal Value
1R0	1.0μH
※R=小数点	

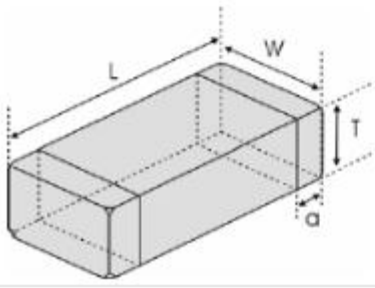
⑤

Inductance Tolerance	
M	±20%
N	±30%

⑥

Packing	
T	Tape & Reel

SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
MCL1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
MCL2012 [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]
			1.25±0.2 [.049±.008]	

SPECIFICATIONS

MCL1608 TYPE

Part Number	Inductance	L Test Freq.	Min. Self-resonant Frequency	DC Resistance	Max. Rated Current	Thickness
Units	μH	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Freq.	S.R.F	DCR	Ir*	T
MCL1608SR10□T	0.1	1	240	0.14±30%	700	0.8±0.15 [.031±.006]
MCL1608SR22□T	0.22	1	150	0.27±30%	550	
MCL1608SR47□T	0.47	1	105	0.42±30%	400	
MCL1608S1R0□T	1.0	1	75	0.20±30%	190	
MCL1608S2R2□T	2.2	1	50	0.40±30%	140	
MCL1608S4R7□T	4.7	1	35	0.60±30%	100	
MCL1608S100□T	10	1	20	0.90±30%	50	

MCL2012 TYPE

Part Number	Inductance	L Test Freq.	Min. Self-resonant Frequency	DC Resistance	Max. Rated Current	Thickness
Units	μH	MHz	MHz	Ω	mA	mm [inch]
Symbol	L	Freq.	S.R.F	DCR	Ir*	T
MCL2012SR10□T	0.1	1	235	0.07±30%	1000	0.85±0.2 [.033±.008]
MCL2012SR22□T	0.22	1	170	0.13±30%	800	
MCL2012SR47□T	0.47	1	125	0.18±30%	550	
MCL2012S1R0□T	1.0	1	75	0.20±30%	300	
MCL2012S2R2□T	2.2	1	50	0.28±30%	220	
MCL2012S4R7□T	4.7	1	25	0.30±30%	180	
MCL2012S100□T	10	1	15	0.50±30%	60	1.25±0.2 [.049±.008]
MCL2012H100□T	10	1	20	0.50±30%	100	

※□:Please specify the inductance tolerance code (M=±20%, N=±30%);
※*:The rated current is the value of DC current at which the inductance value is dropped within 50% with the application of DC bias.