

# Multilayer Ferrite Inductors

## Features

- Monolithic structure for closed magnetic path eliminating crosstalk and providing high reliability in a wide temperature and humidity range
- Standard EIA/EIAJ chip sizes such as 0603/1608, 0805/2012, and 1206/3216
- Superior termination bonding strength
- Nickel barrier with solder overlated termination offering excellent solderability and solder leach resistance, suitable for both wave and reflow soldering processes

## Applications

- Prevention of electromagnetic interference to signal for high density circuits in disk drives, personal computers, measuring equipment, and telephone equipment

## Operating Temperature

-40°C — +85°C

## Product Identification

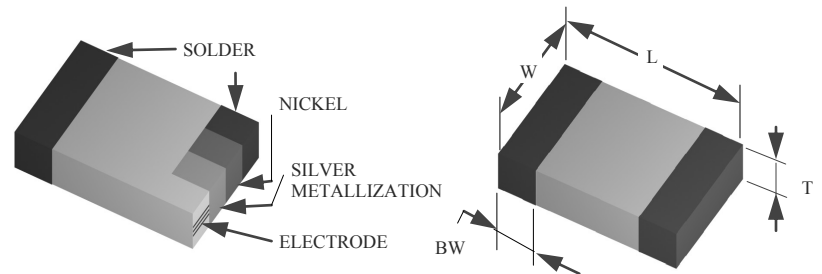
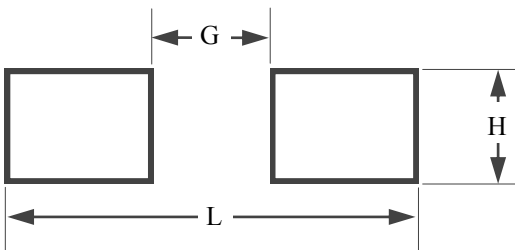
MCI 0603 J 152 K T - T  
 (1) (2) (3) (4) (5) (6) (7)

- (1) Series code:  
MCI: Multilayer Ferrite Inductor
- (2) Dimensions: L x W inches  
The first two digits: L (length)  
The last two digits: W (width)
- (3) Characteristic code: H, J
- (4) Value code: Inductance (nH)  
The first two digits are significant. The last digit specifies the number of zeros to follow.
- (5) Tolerance code:  
K = ±10%  
M = ±20%
- (6) Package code:  
T = Tape & Reel  
B = Bulk
- (7) Termination type code:  
T = 100% Sn plating

## Recommended PC Board Land Patterns

CHIP SIZE EIA/EIAJ	L INCH (mm)	G INCH (mm)	H NCH (mm)
0603(1608)	0.102 (2.60)	0.022 (0.55)	0.037 (0.94)
0805(2012)	0.118 (3.00)	0.026 (0.66)	0.057 (1.45)
1206(3216)	0.173 (4.40)	0.059 (1.50)	0.071 (1.80)

## Shape and Dimensions



CHIP SIZE EIA/EIAJ	LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	TERMINATION (BW) INCH (mm)
0603/1608	0.063 ± 0.006 (1.60 ± 0.15)	0.031 ± 0.006 (0.80 ± 0.15)	0.031 ± 0.006 (0.80 ± 0.15)	0.014 ± 0.006 (0.36 ± 0.15)
0805/2012	0.079 ± 0.008 (2.00 ± 0.20)	0.049 ± 0.008 (1.25 ± 0.20)	<2.7μH 0.035 ± 0.008 (0.90 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)
			≥2.7μH 0.049 ± 0.008 (1.25 ± 0.20)	
1206/3216	0.126 ± 0.008 (3.20 ± 0.20)	0.063 ± 0.008 (1.60 ± 0.20)	0.043 ± 0.008 (1.10 ± 0.20)	0.020 ± 0.012 (0.51 ± 0.30)

## MCI Series (General Use)

<i>AEM Part Number</i>	<i>L μH</i>	<i>Tolerance</i>	<i>Min. Q</i>	<i>Test Frequency MHz</i>	<i>Min. SRF MHz</i>	<i>Max. R<sub>DC</sub> Ω</i>	<i>Max. I A</i>
MCI0603H470	0.047	M	15	50	260	0.30	0.20
MCI0603H680	0.068	M	15	50	250	0.30	0.20
MCI0603H820	0.082	M	15	50	245	0.30	0.20
MCI0603H101	0.10	K, M	25	25	240	0.50	0.20
MCI0603H121	0.12	K, M	25	25	205	0.50	0.20
MCI0603H151	0.15	K, M	25	25	180	0.60	0.15
MCI0603H181	0.18	K, M	25	25	165	0.60	0.15
MCI0603H221	0.22	K, M	25	25	150	0.80	0.15
MCI0603H271	0.27	K, M	25	25	135	0.80	0.15
MCI0603H331	0.33	K, M	25	25	125	0.85	0.15
MCI0603H391	0.39	K, M	25	25	110	1.00	0.15
MCI0603H471	0.47	K, M	25	25	105	1.35	0.08
MCI0603H561	0.56	K, M	25	25	95	1.55	0.06
MCI0603H681	0.68	K, M	25	25	90	1.70	0.06
MCI0603H821	0.82	K, M	25	25	85	2.10	0.05
MCI0603J102	1.0	K, M	35	10	75	0.60	0.10
MCI0603J122	1.2	K, M	35	10	65	0.80	0.10
MCI0603J152	1.5	K, M	35	10	60	0.80	0.10
MCI0603J182	1.8	K, M	35	10	55	0.95	0.10
MCI0603J222	2.2	K, M	35	10	50	1.15	0.10
MCI0603J272	2.7	K, M	35	10	45	1.35	0.08
MCI0603J332	3.3	K, M	35	10	40	1.55	0.06
MCI0603J392	3.9	K, M	35	10	35	1.70	0.06
MCI0603J472	4.7	K, M	35	10	33	2.10	0.04

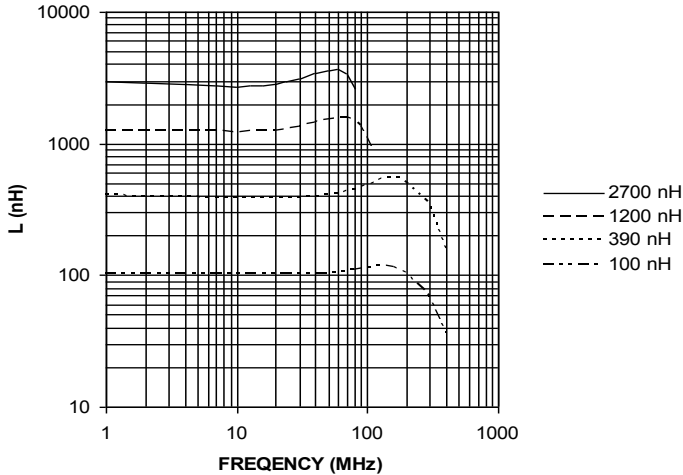
Other values may be available upon request.

Please add tolerance, packaging and termination type codes when ordering.

# Electrical Characteristics

(Curves not listed are available upon request)

## MCI 0603 SERIES



## MCI 0603 SERIES

