

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

-25°C — +85°C

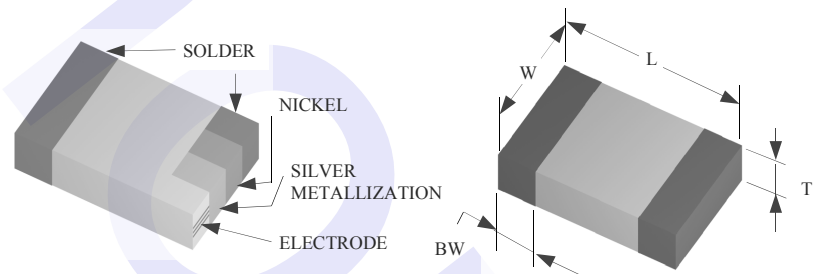
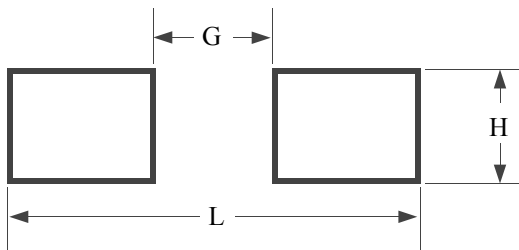
Product Identification

MCI 0603 J 152 K I - I
 (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_{DC} 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.

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_{DC} Ω</i>	<i>Max. I A</i>
MCI0805H470	0.047	M	20	50	320	0.20	0.30
MCI0805H680	0.068	M	20	50	280	0.20	0.30
MCI0805H820	0.082	M	20	50	255	0.20	0.30
MCI0805H101	0.10	K, M	25	25	235	0.30	0.25
MCI0805H121	0.12	K, M	25	25	220	0.30	0.25
MCI0805H151	0.15	K, M	25	25	200	0.40	0.25
MCI0805H181	0.18	K, M	25	25	185	0.40	0.25
MCI0805H221	0.22	K, M	25	25	170	0.50	0.25
MCI0805H271	0.27	K, M	25	25	150	0.50	0.25
MCI0805H331	0.33	K, M	25	25	145	0.55	0.25
MCI0805H391	0.39	K, M	25	25	135	0.65	0.20
MCI0805H471	0.47	K, M	25	25	125	0.65	0.20
MCI0805H561	0.56	K, M	25	25	115	0.75	0.15
MCI0805H681	0.68	K, M	25	25	105	0.80	0.15
MCI0805H821	0.82	K, M	25	25	100	1.00	0.15
MCI0805J102	1.0	K, M	45	10	75	0.40	0.15
MCI0805J122	1.2	K, M	45	10	65	0.50	0.15
MCI0805J152	1.5	K, M	45	10	60	0.50	0.15
MCI0805J182	1.8	K, M	45	10	55	0.60	0.15
MCI0805J222	2.2	K, M	45	10	50	0.65	0.15
MCI0805J272	2.7	K, M	45	10	45	0.75	0.15
MCI0805J332	3.3	K, M	45	10	41	0.80	0.10
MCI0805J392	3.9	K, M	45	10	38	0.90	0.10
MCI0805J472	4.7	K, M	45	10	35	1.00	0.10
MCI0805J562	5.6	K, M	45	4	32	1.00	0.10
MCI0805J682	6.8	K, M	45	4	29	1.00	0.10
MCI0805J822	8.2	K, M	45	4	26	1.10	0.10
MCI0805J103	10	K, M	45	2	24	1.20	0.10

Other values may be available upon request.
Please add tolerance, packaging and termination type codes when ordering.

MCI Series (General Use)

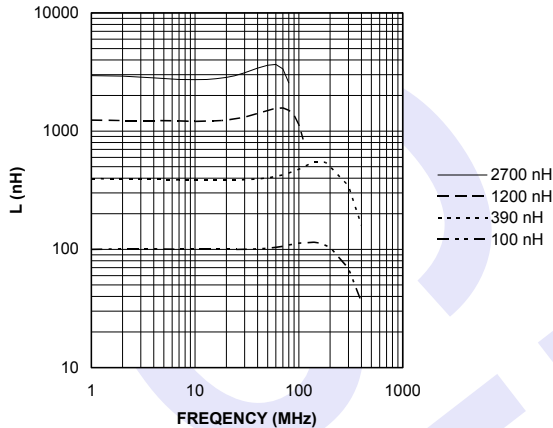
<i>AEM Part Number</i>	<i>L μH</i>	<i>Tolerance</i>	<i>Min. Q</i>	<i>Test Frequency MHz</i>	<i>Min. SRF MHz</i>	<i>Max. R_{DC} Ω</i>	<i>Max. I A</i>
MCI1206H470	0.047	M	20	50	320	0.15	0.30
MCI1206H680	0.068	M	20	50	280	0.25	0.30
MCI1206H101	0.10	K, M	25	25	235	0.25	0.30
MCI1206H121	0.12	K, M	25	25	220	0.30	0.25
MCI1206H151	0.15	K, M	25	25	200	0.30	0.25
MCI1206H181	0.18	K, M	25	25	185	0.40	0.25
MCI1206H221	0.22	K, M	25	25	170	0.40	0.25
MCI1206H271	0.27	K, M	25	25	150	0.50	0.25
MCI1206H331	0.33	K, M	25	25	145	0.50	0.25
MCI1206H391	0.39	K, M	25	25	135	0.60	0.20
MCI1206H471	0.47	K, M	25	25	125	0.60	0.20
MCI1206H561	0.56	K, M	25	25	115	0.70	0.15
MCI1206H681	0.68	K, M	25	25	105	0.80	0.15
MCI1206H821	0.82	K, M	25	25	100	0.90	0.15
MCI1206J102	1.0	K, M	45	10	75	0.40	0.15
MCI1206J122	1.2	K, M	45	10	65	0.50	0.15
MCI1206J152	1.5	K, M	45	10	60	0.50	0.15
MCI1206J182	1.8	K, M	45	10	55	0.50	0.15
MCI1206J222	2.2	K, M	45	10	50	0.60	0.15
MCI1206J272	2.7	K, M	45	10	45	0.60	0.15
MCI1206J332	3.3	K, M	45	10	41	0.70	0.10
MCI1206J392	3.9	K, M	45	10	38	0.80	0.10
MCI1206J472	4.7	K, M	45	10	35	0.85	0.10
MCI1206J562	5.6	K, M	45	4	32	0.90	0.10
MCI1206J682	6.8	K, M	45	4	29	0.90	0.10
MCI1206J822	8.2	K, M	45	4	26	0.90	0.10
MCI1206J103	10	K, M	45	2	24	1.00	0.10
MCI1206J153	15	K, M	35	1	19	0.70	0.10
MCI1206J223	22	K, M	35	1	16	0.90	0.10
MCI1206J333	33	K, M	35	0.4	13	1.05	0.10

Other values may be available upon request.

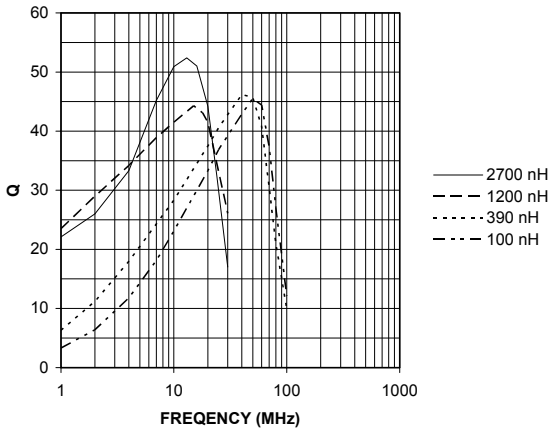
Please add tolerance, packaging and termination type codes when ordering.

Electrical Characteristics
 (Curves not listed are available upon request)

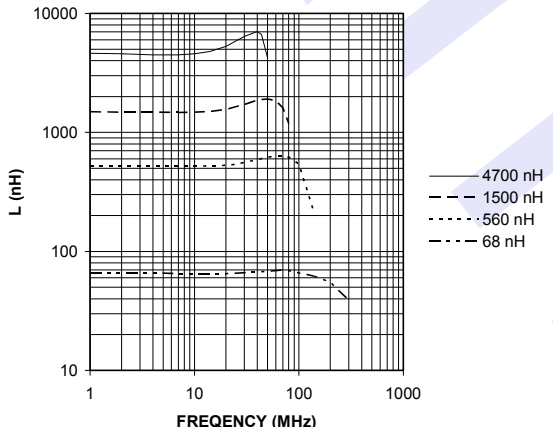
MCI 0603 SERIES



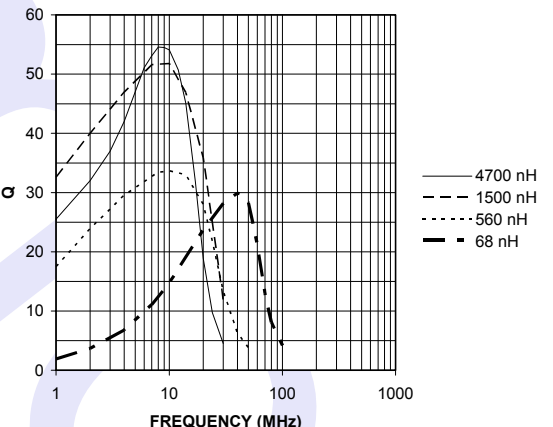
MCI 0603 SERIES



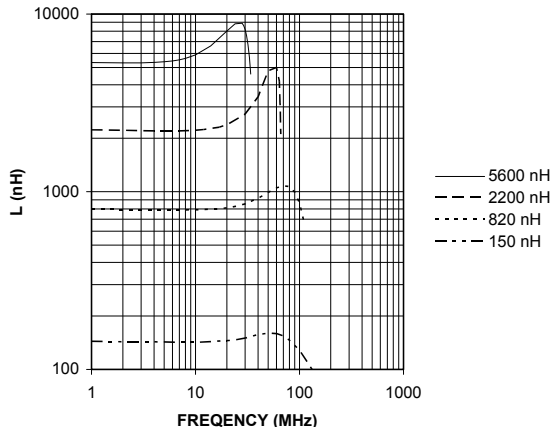
MCI 0805 SERIES



MCI 0805 SERIES



MCI 1206 SERIES



MCI 1206 SERIES

