

Multilayer Ferrite Inductors

Features

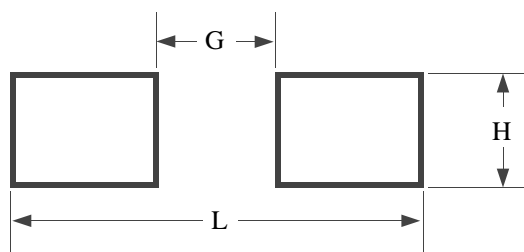
- Monolithic structure for closed magnetic path eliminating crosstalk and providing high reliability in wide temperature and humidity range
- Standard EIA/EIAJ chip sizes such as 0603/1608, 0805/2012, and 1206/3216
- Superior termination bonding strength
- Nickel barrier with solder overlated termination 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

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)



Operating Temperature

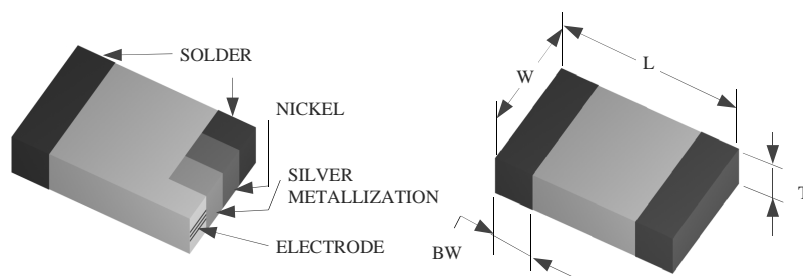
-25°C — +85°C

Product Identification

MCI 0805 H 101 P 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

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) ≥2.7µH 0.049 ± 0.008 (1.25 ± 0.20)	0.020 ± 0.010 (0.51 ± 0.25)
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 ± 0.010 (0.51 ± 0.25)

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	10	50	260	0.30	0.05
MCI0603H680	0.068	M	10	50	250	0.30	0.05
MCI0603H820	0.082	M	10	50	245	0.30	0.05
MCI0603H101	0.10	K, M	15	25	240	0.50	0.05
MCI0603H121	0.12	K, M	15	25	205	0.50	0.05
MCI0603H151	0.15	K, M	15	25	180	0.60	0.05
MCI0603H181	0.18	K, M	15	25	165	0.60	0.05
MCI0603H221	0.22	K, M	15	25	150	0.80	0.05
MCI0603H271	0.27	K, M	15	25	136	0.80	0.05
MCI0603H331	0.33	K, M	15	25	125	0.85	0.035
MCI0603H391	0.39	K, M	15	25	110	1.00	0.035
MCI0603H471	0.47	K, M	15	25	105	1.35	0.035
MCI0603H561	0.56	K, M	15	25	95	1.55	0.035
MCI0603H681	0.68	K, M	15	25	90	1.70	0.035
MCI0603H821	0.82	K, M	15	25	85	2.10	0.035
MCI0603J102	1.0	K, M	35	10	75	0.60	0.025
MCI0603J122	1.2	K, M	35	10	65	0.80	0.025
MCI0603J152	1.5	K, M	35	10	60	0.80	0.025
MCI0603J182	1.8	K, M	35	10	55	0.95	0.025
MCI0603J222	2.2	K, M	35	10	50	1.15	0.015
MCI0603J272	2.7	K, M	35	10	45	1.35	0.015
MCI0603J332	3.3	K, M	35	10	40	1.55	0.015
MCI0603J392	3.9	K, M	35	10	35	1.70	0.015
MCI0603J472	4.7	K, M	35	10	33	2.10	0.015
MCI0603J562	5.6	K, M	35	4	22	1.55	0.005
MCI0603J682	6.8	K, M	35	4	20	1.70	0.005
MCI0603J822	8.2	K, M	35	4	18	2.10	0.005
MCI0603J103	10	K, M	30	2	17	1.85	0.003
MCI0603J123	12	K, M	30	2	15	2.10	0.003

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	15	50	320	0.20	0.30
MCI0805H680	0.068	M	15	50	280	0.20	0.30
MCI0805H820	0.082	M	15	50	255	0.20	0.30
MCI0805H101	0.1	K, M	20	25	235	0.30	0.25
MCI0805H121	0.12	K, M	20	25	220	0.30	0.25
MCI0805H151	0.15	K, M	20	25	200	0.40	0.25
MCI0805H181	0.18	K, M	20	25	185	0.40	0.25
MCI0805H221	0.22	K, M	20	25	170	0.50	0.25
MCI0805H271	0.27	K, M	20	25	150	0.50	0.25
MCI0805H331	0.33	K, M	20	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	0.05
MCI0805J122	1.2	K, M	45	10	65	0.50	0.05
MCI0805J152	1.5	K, M	45	10	60	0.50	0.05
MCI0805J182	1.8	K, M	45	10	55	0.60	0.05
MCI0805J222	2.2	K, M	45	10	50	0.65	0.03
MCI0805J272	2.7	K, M	45	10	45	0.75	0.03
MCI0805J332	3.3	K, M	45	10	41	0.80	0.03
MCI0805J392	3.9	K, M	45	10	38	0.90	0.03
MCI0805J472	4.7	K, M	45	10	35	1.00	0.03
MCI0805J562	5.6	K, M	50	4	32	0.90	0.015
MCI0805J682	6.8	K, M	50	4	29	1.00	0.015
MCI0805J822	8.2	K, M	50	4	26	1.10	0.015
MCI0805J103	10	K, M	50	2	24	1.15	0.015
MCI0805J123	12	K, M	50	2	22	1.25	0.015
MCI0805J153	15	K, M	30	1	19	0.8	0.005
MCI0805J183	18	K, M	30	1	18	0.9	0.005
MCI0805J223	22	K, M	30	1	16	1.1	0.005
MCI0805J273	27	K, M	30	1	14	1.15	0.005
MCI0805J333	33	K, M	30	0.4	13	1.25	0.005

Other values may be available upon request.

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MCI Series (General Use)

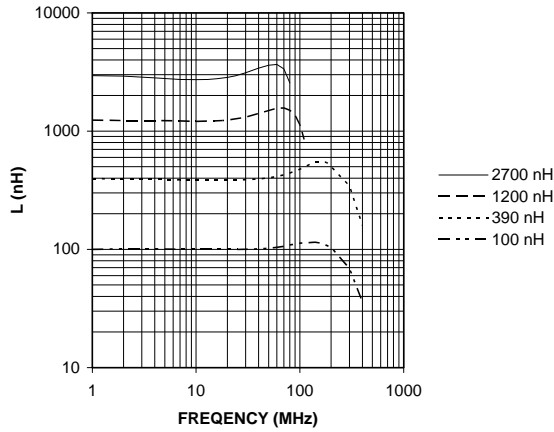
<i>AEM Part Number</i>	<i>L μH</i>	<i>Tolerance</i>	<i>Min. Q</i>	<i>Test Frequency MHz</i>	<i>Min. SRF MHz</i>	<i>Max. R_{DC} Ω</i>	<i>Max. I A</i>
MCI1206H470	0.047	M	20	50	320	0.15	0.30
MCI1206H680	0.068	M	20	50	280	0.25	0.30
MCI1206H101	0.1	K, M	20	25	235	0.25	0.25
MCI1206H121	0.12	K, M	20	25	220	0.30	0.25
MCI1206H151	0.15	K, M	20	25	200	0.30	0.25
MCI1206H181	0.18	K, M	20	25	185	0.40	0.25
MCI1206H221	0.22	K, M	20	25	170	0.40	0.25
MCI1206H271	0.27	K, M	20	25	150	0.50	0.25
MCI1206H331	0.33	K, M	20	25	145	0.60	0.25
MCI1206H391	0.39	K, M	25	25	135	0.50	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	K, M	45	10	75	0.40	0.10
MCI1206J122	1.2	K, M	45	10	65	0.50	0.10
MCI1206J152	1.5	K, M	45	10	60	0.50	0.05
MCI1206J182	1.8	K, M	45	10	55	0.50	0.05
MCI1206J222	2.2	K, M	45	10	50	0.60	0.05
MCI1206J272	2.7	K, M	45	10	45	0.60	0.05
MCI1206J332	3.3	K, M	45	10	41	0.70	0.05
MCI1206J392	3.9	K, M	45	10	38	0.80	0.05
MCI1206J472	4.7	K, M	45	10	35	0.85	0.05
MCI1206J562	5.6	K, M	50	4	32	0.90	0.025
MCI1206J682	6.8	K, M	50	4	29	0.90	0.025
MCI1206J822	8.2	K, M	50	4	26	0.90	0.025
MCI1206J103	10	K, M	50	2	24	1.00	0.025
MCI1206J123	12	K, M	50	2	22	1.05	0.015
MCI1206J153	15	K, M	30	1	19	0.70	0.005
MCI1206J183	18	K, M	30	1	18	0.70	0.005
MCI1206J223	22	K, M	30	1	16	0.90	0.005
MCI1206J273	27	K, M	30	1	14	0.90	0.005
MCI1206J333	33	K, M	30	0.4	13	1.05	0.005

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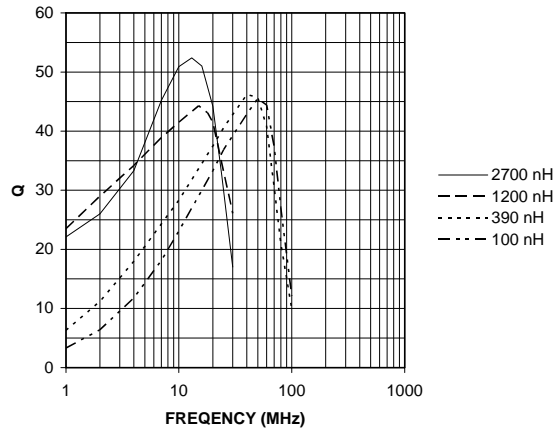
Please add tolerance, packaging and termination type codes when ordering.

Electrical Characteristics
 (Curves not listed are available upon request)

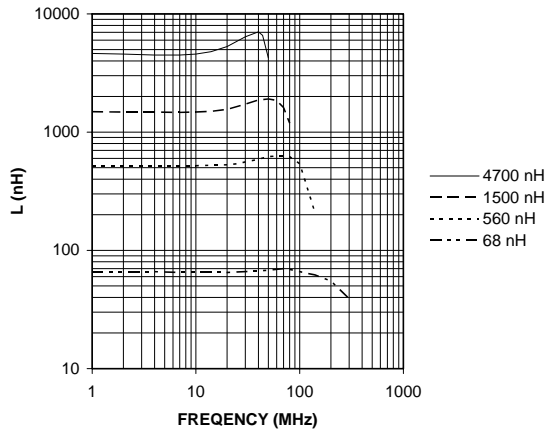
MCI 0603 SERIES



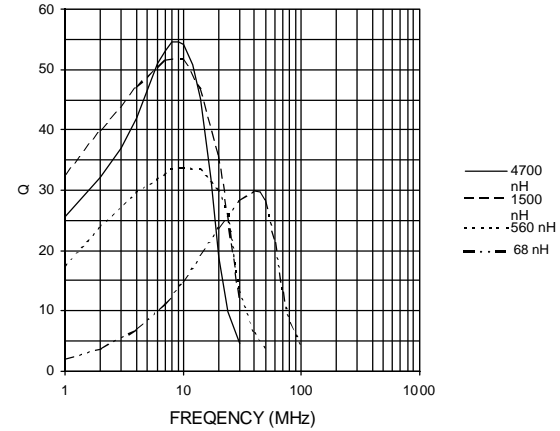
MCI 0603 SERIES



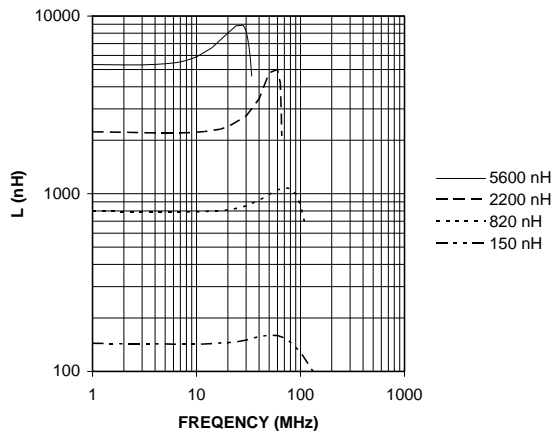
MCI 0805 SERIES



MCI 0805 SERIES



MCI 1206 SERIES



MCI 1206 SERIES

