

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	0.060
MCI0603H680	0.068	M	15	50	250	0.30	0.060
MCI0603H820	0.082	M	15	50	245	0.30	0.060
MCI0603H101	0.10	K, M	15	25	240	0.50	0.050
MCI0603H121	0.12	K, M	15	25	205	0.50	0.050
MCI0603H151	0.15	K, M	15	25	180	0.60	0.050
MCI0603H181	0.18	K, M	15	25	165	0.60	0.050
MCI0603H221	0.22	K, M	15	25	150	0.80	0.050
MCI0603H271	0.27	K, M	15	25	135	0.80	0.050
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	0.010
MCI0603J682	6.8	K, M	35	4	20	1.70	0.010
MCI0603J822	8.2	K, M	35	4	18	2.10	0.005
MCI0603J103	10	K, M	30	2	17	1.85	0.005

Other values may be available upon request.
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<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	K, M	15	50	320	0.20	0.300
MCI0805H680	0.068	K, M	15	50	280	0.20	0.300
MCI0805H820	0.082	K, M	15	50	255	0.20	0.300
MCI0805H101	0.10	K, M	20	25	235	0.30	0.250
MCI0805H121	0.12	K, M	20	25	220	0.30	0.250
MCI0805H151	0.15	K, M	20	25	200	0.40	0.250
MCI0805H181	0.18	K, M	20	25	185	0.40	0.250
MCI0805H221	0.22	K, M	20	25	170	0.50	0.250
MCI0805H271	0.27	K, M	20	25	150	0.50	0.250
MCI0805H331	0.33	K, M	20	25	145	0.55	0.250
MCI0805H391	0.39	K, M	25	25	135	0.65	0.200
MCI0805H471	0.47	K, M	25	25	125	0.65	0.200
MCI0805H561	0.56	K, M	25	25	115	0.75	0.150
MCI0805H681	0.68	K, M	25	25	105	0.80	0.150
MCI0805H821	0.82	K, M	25	25	100	1.00	0.150
MCI0805J102	1.0	K, M	45	10	75	0.40	0.070
MCI0805J122	1.2	K, M	45	10	65	0.50	0.070
MCI0805J152	1.5	K, M	45	10	60	0.50	0.050
MCI0805J182	1.8	K, M	45	10	55	0.60	0.050
MCI0805J222	2.2	K, M	45	10	50	0.65	0.050
MCI0805J272	2.7	K, M	45	10	45	0.75	0.050
MCI0805J332	3.3	K, M	45	10	41	0.80	0.030
MCI0805J392	3.9	K, M	45	10	38	0.90	0.030
MCI0805J472	4.7	K, M	45	10	35	1.00	0.020
MCI0805J562	5.6	K, M	50	4	32	0.90	0.020
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	24	1.25	0.015

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<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	0.300
MCI1206H680	0.068	M	20	50	280	0.25	0.300
MCI1206H101	0.10	K, M	20	25	235	0.25	0.250
MCI1206H121	0.12	K, M	20	25	220	0.30	0.250
MCI1206H151	0.15	K, M	20	25	200	0.30	0.250
MCI1206H181	0.18	K, M	20	25	185	0.40	0.250
MCI1206H221	0.22	K, M	20	25	170	0.40	0.250
MCI1206H271	0.27	K, M	20	25	150	0.50	0.250
MCI1206H331	0.33	K, M	20	25	145	0.60	0.250
MCI1206H391	0.39	K, M	25	25	135	0.60	0.200
MCI1206H471	0.47	K, M	25	25	125	0.60	0.200
MCI1206H561	0.56	K, M	25	25	115	0.70	0.150
MCI1206H681	0.68	K, M	25	25	105	0.80	0.150
MCI1206H821	0.82	K, M	25	25	100	0.90	0.150
MCI1206J102	1.0	K, M	45	10	75	0.40	0.100
MCI1206J122	1.2	K, M	45	10	65	0.50	0.100
MCI1206J152	1.5	K, M	45	10	60	0.50	0.060
MCI1206J182	1.8	K, M	45	10	55	0.50	0.060
MCI1206J222	2.2	K, M	45	10	50	0.60	0.060
MCI1206J272	2.7	K, M	45	10	45	0.60	0.050
MCI1206J332	3.3	K, M	45	10	41	0.70	0.050
MCI1206J392	3.9	K, M	45	10	38	0.80	0.050
MCI1206J472	4.7	K, M	45	10	35	0.85	0.050
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	35	1	19	0.70	0.010
MCI1206J183	18	K, M	35	1	18	0.70	0.010
MCI1206J223	22	K, M	35	1	16	0.90	0.005
MCI1206J273	27	K, M	35	1	14	0.90	0.005
MCI1206J333	33	K, M	35	1	13	1.05	0.005

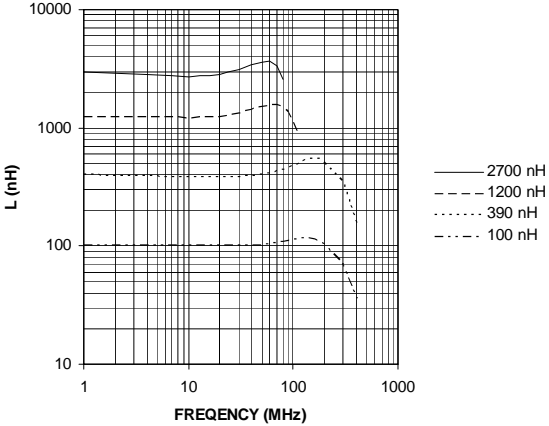
Other values may be available upon request.

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

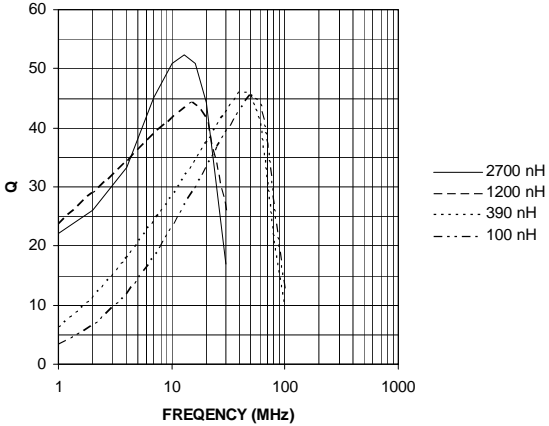
Electrical Characteristics

(Curves not listed are available upon request)

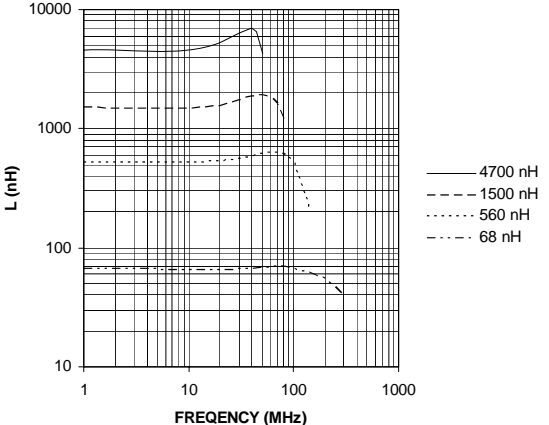
MCI 0603 SERIES



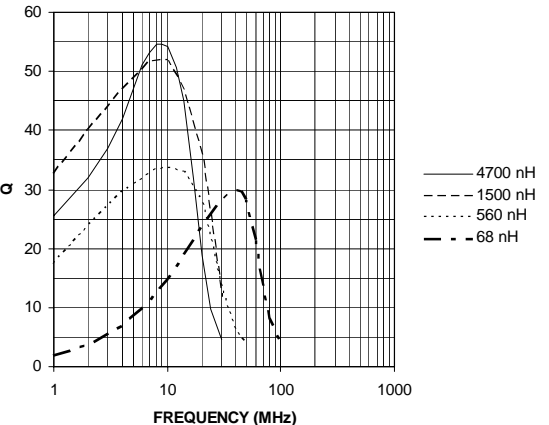
MCI 0603 SERIES



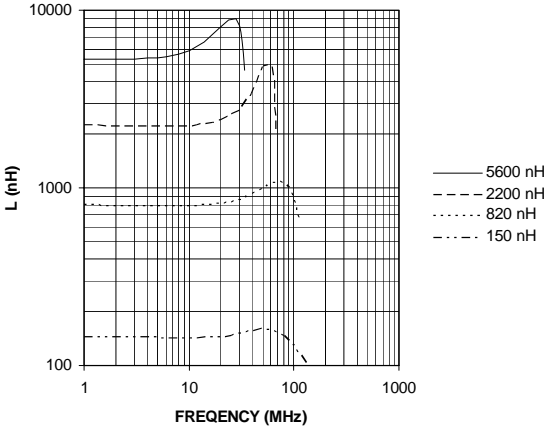
MCI 0805 SERIES



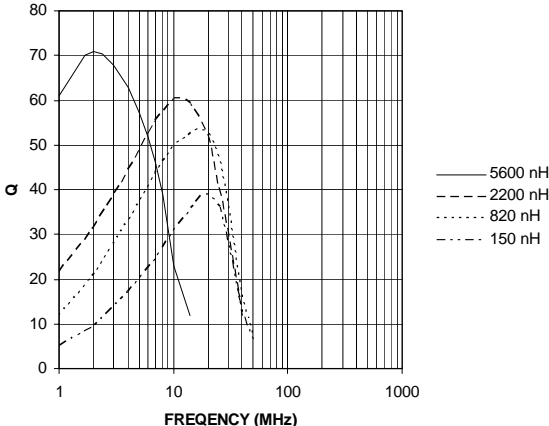
MCI 0805 SERIES



MCI 1206 SERIES



MCI 1206 SERIES



Multilayer Ceramic Inductors

Features

- Monolithic structure with high reliability
- Standard EIA/EIAJ chip sizes such as 0402/1005 and 0603/1608
- High quality ceramic material and unique manufacturing processes providing high Q at high frequencies and high self-resonant frequencies
- Superior termination bonding strength
- Nickel barrier with solder overplated termination offering excellent solderability and solder leach resistance, suitable for both wave and reflow soldering processes

Applications

- High frequency equipment including cellular phones, pagers, radar detectors, computer communications, etc

Recommended PC Board Land Patterns

CHIP SIZE EIA/EIAJ	L INCH (mm)	G INCH (mm)	H INCH (mm)
0402(1005)	0.063 (1.60)	0.016 (0.40)	0.024 (0.60)
0603(1608)	0.102 (2.60)	0.022 (0.55)	0.037 (0.94)

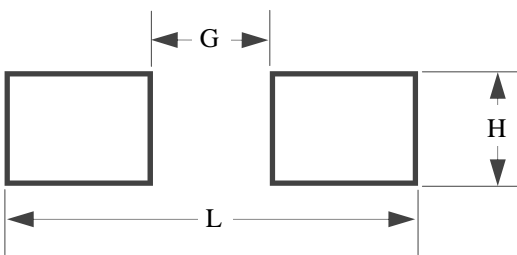
Operating Temperature

-40°C — +125°C

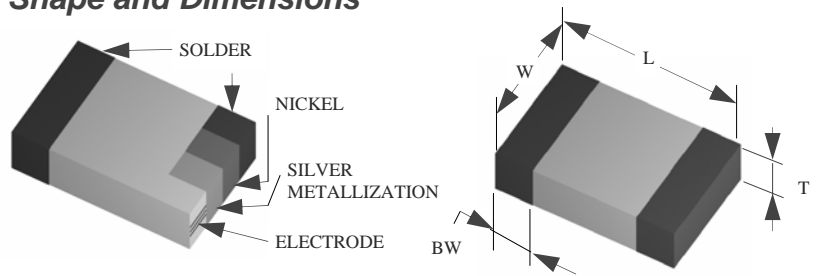
Product Identification

MHI 0603 C 1N8 S T - T
(1) (2) (3) (4) (5) (6) (7)

- (1) Series code :
MHI: Multilayer Ceramic Inductor
- (2) Dimensions: L x W inches
The first two digits: L (length)
The last two digits: W (width)
- (3) Characteristic code: C
- (4) Value code: Inductance
N — decimal point for nH
Example: 1N8 = 1.8 nH
R — decimal point for μH (1000 nH)
Example: R12 = 0.12 μH = 120 nH
- (5) Tolerance code:
J = ±5%
K = ±10%
S = ±0.3 nH
- (6) Package code:
T = Tape & Reel
B = Bulk
- (7) Termination plating code:
T = 100% Sn plating Terminations
(Sn/Pb plating no longer available)



Shape and Dimensions



SIZE EIA/EIAJ	LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	TERMINATION (BW) INCH (mm)
0402/1005	0.039 ± 0.004 (1.00 ± 0.10)	0.020 ± 0.004 (0.50 ± 0.10)	0.020 ± 0.004 (0.50 ± 0.10)	0.010 ± 0.004 (0.25 ± 0.10)
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)