



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MULTILAYER CHIP CERAMIC INDUCTORS



1.0 x 0.6 x 0.5 mm

AIMC-0402HQ



RoHS
Compliant

FEATURES:

- High self-resonant frequency
- Multilayer monolithic construction yields high reliability
- Excellent solderability & heat resistance for reflow soldering
- Extremely high Q value

APPLICATIONS:

- Bluetooth
- Mobile phones such as GSM, CDMA, PDC
- High frequency telecommunication circuits
- Other high frequency circuit general use

STANDARD SPECIFICATIONS:

PARAMETERS

ABRACON P/N:	AIMC-0402HQ
Operating temperature:	-55°C to + 125°C
Storage temperature:	-10°C ~ +40°C and 70% R.H. max.

Part Number	L (nH)	Tolerance	Q	L, Q Test. Freq (MHz)	Q (Typ.) Freq. (MHz)				S.R.F (MHz)	DCR (Ω)	Ir (mA)	Inductance Code
					100	250	900	1800				
AIMC-0402HQ-1N0	1.0	B, C, S	20	250	13	22	48	75	6000	0.05	1000	1N0
AIMC-0402HQ-1N2	1.2	B, C, S	20	250	13	22	48	75	6000	0.05	1000	1N2
AIMC-0402HQ-1N5	1.5	B, C, S	20	250	13	22	58	76	6000	0.05	1000	1N5
AIMC-0402HQ-1N8	1.8	B, C, S	20	250	13	22	49	78	6000	0.07	800	1N8
AIMC-0402HQ-2N0	2.0	B, C, S	20	250	14	23	49	82	6000	0.07	800	2N0
AIMC-0402HQ-2N2	2.2	B, C, S	20	250	14	23	49	82	6000	0.07	800	2N2
AIMC-0402HQ-2N4	2.4	B, C, S	20	250	14	23	47	78	6000	0.07	800	2N4
AIMC-0402HQ-2N5	2.5	B, C, S	20	250	14	23	47	78	6000	0.07	800	2N5
AIMC-0402HQ-2N7	2.7	B, C, S	20	250	14	23	48	82	6000	0.09	700	2N7
AIMC-0402HQ-2N9	2.9	B, C, S	20	250	14	23	48	82	6000	0.09	700	2N9
AIMC-0402HQ-3N0	3.0	B, C, S	20	250	14	23	50	84	6000	0.09	700	3N0
AIMC-0402HQ-3N3	3.3	B, C, S	20	250	14	24	52	90	6000	0.09	700	3N3
AIMC-0402HQ-3N6	3.6	B, C, S	20	250	15	24	55	95	6000	0.10	700	3N6
AIMC-0402HQ-3N9	3.9	B, C, S	20	250	15	25	50	89	6000	0.10	700	3N9
AIMC-0402HQ-4N1	4.1	B, C, S	20	250	15	25	49	86	6000	0.12	650	4N1
AIMC-0402HQ-4N3	4.3	B, C, S	20	250	15	25	49	86	6000	0.13	600	4N3
AIMC-0402HQ-4N7	4.7	B, C, S	20	250	15	26	50	88	6000	0.13	600	4N7
AIMC-0402HQ-5N1	5.1	B, C, S	20	250	15	26	49	84	5500	0.13	600	5N1
AIMC-0402HQ-5N6	5.6	B, C, S	20	250	15	27	50	84	5500	0.13	600	5N6
AIMC-0402HQ-5N8	5.8	B, C, S	20	250	15	27	50	82	5500	0.13	600	5N8
AIMC-0402HQ-6N2	6.2	B, C, S	20	250	15	27	50	80	5500	0.14	550	6N2
AIMC-0402HQ-6N8	6.8	G, H, J	22	250	15	27	55	89	5000	0.15	550	6N8
AIMC-0402HQ-7N3	7.3	G, H, J	22	250	15	27	54	90	5000	0.16	550	7N3
AIMC-0402HQ-7N5	7.5	G, H, J	22	250	15	27	54	90	5000	0.16	550	7N5
AIMC-0402HQ-8N2	8.2	G, H, J	22	250	15	27	56	84	5000	0.16	550	8N2
AIMC-0402HQ-8N7	8.7	G, H, J	22	250	15	27	53	80	5000	0.17	500	8N7
AIMC-0402HQ-9N1	9.1	G, H, J	22	250	15	27	53	79	4500	0.18	500	9N1
AIMC-0402HQ-9N5	9.5	G, H, J	22	250	15	27	52	77	4500	0.18	500	9N5
AIMC-0402HQ-10N	10	G, H, J	22	250	16	29	52	75	4500	0.18	500	10N
AIMC-0402HQ-11N	11	G, H, J	22	250	16	28	52	71	4000	0.20	500	11N
AIMC-0402HQ-12N	12	G, H, J	22	250	16	29	51	68	4000	0.20	500	12N
AIMC-0402HQ-15N	15	G, H, J	22	250	16	29	50	60	4000	0.22	430	15N

Test Conditions:

- Ambient Temperature: 20± 15°C
- Relative Humidity: 65%±20%
- Air Pressure: 86KPa to 106KPa

Inductance (L) & Q Factor (Q): High Accuracy RF Impedance/Material Analyzer-E4991A+HP16197A or Equiv., -20dBm/50mV

Direct Current Resistance (DCR): High Accuracy Milliohmeter-HP4338B or Equiv.

Self-Resonant Frequency (SRF): Agilent8719ES or Equiv., -20dBm/50mV

Temperature rise current (Ir): Electric Power, Electric current meter, Thermometer. ΔT ≤ 20°C

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Revised: 11.27.12

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1.0 x 0.6 x 0.5 mm

AIMC-0402HQ



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Compliant

OPTIONS AND PART IDENTIFICATION:

AIMC-0402HQ - [] [] - []

Inductance Code
Please refer to the table above

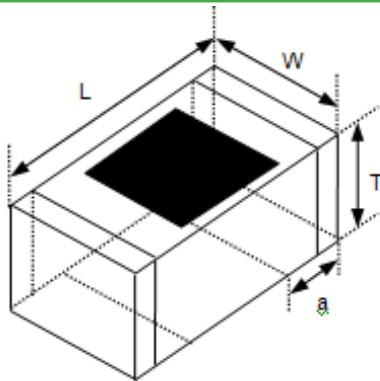
Tolerance
B: $\pm 0.1\text{nH}$ *
C: $\pm 0.2\text{nH}$ *
S: $\pm 0.3\text{nH}$ *
G: $\pm 2\%$ *
H: $\pm 3\%$ *
J: $\pm 5\%$ *

Packaging
T: Tape and Reel
(10kpcs / reel)

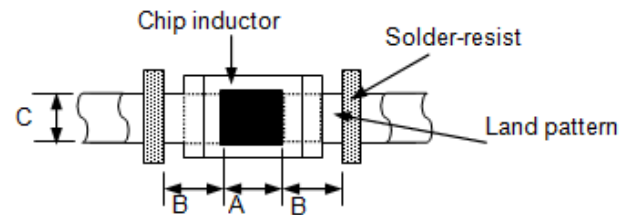
*B,C,S for L=1.0nH~6.2nH

*G,H,J for L=6.8nH~15nH

OUTLINE DIMENSIONS:



Recommended Land Pattern



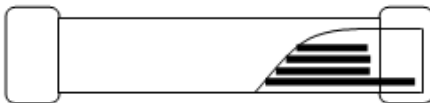
Series	L	W	T	a
AIMC-0402HQ	1.0 \pm 0.15 [0.039 \pm 0.006]	0.6 \pm 0.15 [0.024 \pm 0.006]	0.5 \pm 0.15 [0.020 \pm 0.006]	0.25 \pm 0.1 [0.010 \pm 0.004]

A	B	C
0.45-0.55	0.40-0.50	0.55-0.65

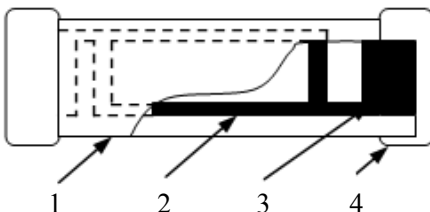
Dimensions: mm [inch]

Materials

Side View



Top View



	Part Name	Material
1	Base Material	Ceramic
2	Internal Conductor	Ag
3	Pull out Electrode	Ag
4	Terminal Electrode	Ag (Inner layer) Ni-Sn (Outer layer)

MULTILAYER CHIP CERAMIC INDUCTORS

AIMC-0402HQ

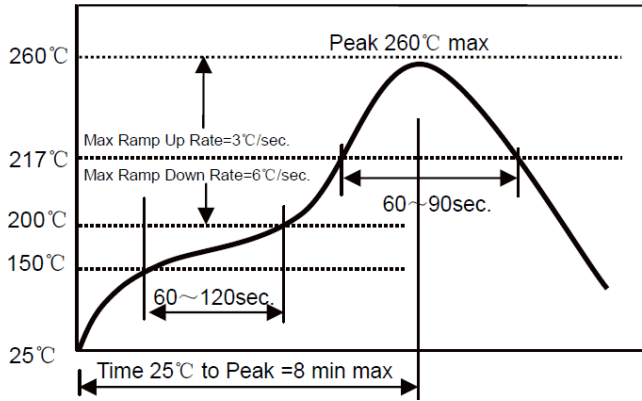


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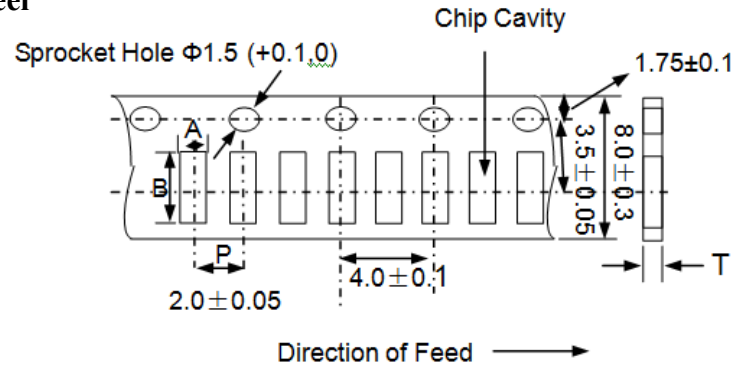
REFLOW PROFILE:



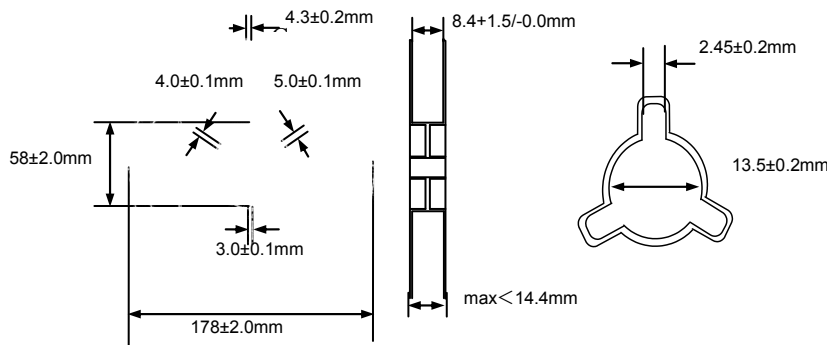
- Δ Preheat condition: 150 ~200°C /60~120sec.
- Δ Allowed time above 217°C: 60~90sec.
- Δ Max temp: 260°C
- Δ Max time at max temp: 10sec.
- Δ Solder paste: Sn/3.0Ag/0.5Cu
- Δ Allowed Reflow time: 2x max

TAPE & REEL:

T: 10,000pcs / reel



A	B	P	T(max)
0.72±0.1	1.15±0.1	2.0±0.05	0.8



Storage Conditions

- a. To maintain the solderability of terminal electrodes and to keep the packing material in good condition, temperature and humidity in the storage area should be controlled. Recommended conditions: $\leq +40^{\circ}\text{C}$, 70% RH (Max.)
- b. The solderability of the external electrode may be deteriorated if packages are stored where they are exposed to dust of harmful gas (e.g. HCl, sulfurous gas of H_2S).
- c. Packaging material may be deformed if package are stored where they are exposed to heat of direct sunlight.
- d. In case of storage over 12 months, solderability shall be checked before actual usage.

Dimension: mm

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