

# Multilayer Ceramic Chip Inductor



## AIMC-0603 Series

Request Samples



Check Inventory



1.6 x 0.8 x 0.8 mm  
RoHS/RoHS II Compliant  
MSL Level = N/A

### Features

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

### Applications

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

### Standard Specifications

Part No.	L(nH)	Tolerance	Q (Typ.)	L,Q Test Freq.	SRF(MHz)	DCR( $\Omega$ )	Ir(mA)
				(MHz)	(min)	(max)	(max)
AIMC-0603-1N0	1.0	B, C, S	13	100	10000	0.05	500
AIMC-0603-1N2	1.2	B, C, S	13	100	10000	0.05	500
AIMC-0603-1N5	1.5	B, C, S	13	100	6000	0.10	500
AIMC-0603-1N8	1.8	B, C, S	13	100	6000	0.10	500
AIMC-0603-2N2	2.2	B, C, S	13	100	6000	0.10	500
AIMC-0603-2N7	2.7	B, C, S	13	100	6000	0.12	500
AIMC-0603-3N3	3.3	B, C, S	13	100	6000	0.15	500
AIMC-0603-3N9	3.9	B, C, S	13	100	6000	0.16	500
AIMC-0603-4N7	4.7	B, C, S	13	100	6000	0.20	500
AIMC-0603-5N6	5.6	B, C, S	14	100	5000	0.25	500
AIMC-0603-6N8	6.8	H, J, K	14	100	5000	0.30	500
AIMC-0603-8N2	8.2	H, J, K	14	100	4500	0.35	500
AIMC-0603-10N	10	H, J, K	15	100	3500	0.40	300
AIMC-0603-12N	12	H, J, K	18	100	3000	0.45	300
AIMC-0603-15N	15	H, J, K	18	100	2300	0.50	300
AIMC-0603-18N	18	H, J, K	16	100	2200	0.55	300
AIMC-0603-22N	22	H, J, K	16	100	2000	0.60	300
AIMC-0603-27N	27	H, J, K	16	100	1700	0.65	300
AIMC-0603-33N	33	H, J, K	16	100	1500	0.70	300
AIMC-0603-39N	39	H, J, K	17	100	1400	0.70	300
AIMC-0603-47N	47	H, J, K	17	100	1200	0.70	300
AIMC-0603-56N	56	H, J, K	17	100	1100	0.75	300
AIMC-0603-68N	68	H, J, K	17	100	900	0.85	300
AIMC-0603-82N	82	H, J, K	15	100	800	1.00	300
AIMC-0603-R10	100	H, J, K	15	100	700	1.20	300
AIMC-0603-R12	120	H, J, K	15	50	600	1.40	200
AIMC-0603-R15	150	H, J, K	15	50	500	1.60	200
AIMC-0603-R18	180	H, J, K	15	50	400	1.90	200
AIMC-0603-R22	220	H, J, K	15	50	350	2.40	200
AIMC-0603-R27	270	H, J, K	16	50	350	2.60	150
AIMC-0603-R33	330	H, J, K	16	50	350	2.80	150
AIMC-0603-R39	390	H, J, K	16	50	300	3.20	150
AIMC-0603-R43	430	H, J, K	16	50	280	3.40	150
AIMC-0603-R47	470	H, J, K	15	50	250	3.60	150

# Multilayer Ceramic Chip Inductor



**AIMC-0603 Series**

Request Samples



Check Inventory



**1.6 x 0.8 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = N/A**

Parameters	
Abracon P/N	AIMC-0603-xxx Series
Operating temperature	-55°C ~ +125°C
Storage temperature	-10°C~+40°C and RH 70% (Max.)

## Test Conditions

**L, Q:** E4991A Impedance Analyzer or equivalent, 50mV, test frequency refers to table 1.0

**DCR:** HP4338B or equivalent

**SRF:** E4991A Impedance analyzer, E5071C Network analyzer or equivalent

**Ir:** DC Power Supplier, Current Meter, Thermometer.  $\Delta L/L$  (initial)  $\geq -5\%$  or  $\Delta T \leq 20^\circ\text{C}$

**Unless otherwise specified**

**Temperature:**  $20 \pm 15^\circ\text{C}$

**Humidity:**  $65 \pm 20\%$

**Atmospheric Pressure:** 86 to 106 kPa

## Part Number Identification

AIMC-0603-   -

Inductance Code
Please refer to the Electrical Spec Table

Tolerance
B: $\pm 0.1\text{nH}$
C: $\pm 0.2\text{nH}$
S: $\pm 0.3\text{nH}$
H: $\pm 3\%$
J: $\pm 5\%$
K: $\pm 10\%$

Packaging
T: Tape and Reel (4kpcs / reel)

# Multilayer Ceramic Chip Inductor



**AIMC-0603 Series**

Request Samples

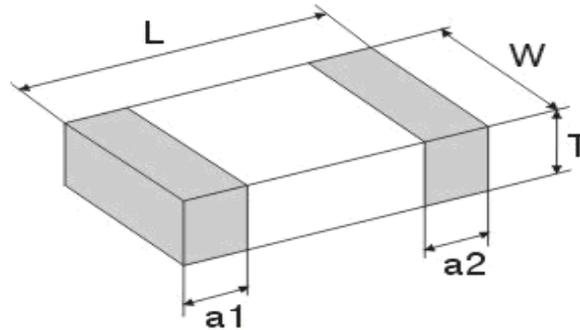


Check Inventory

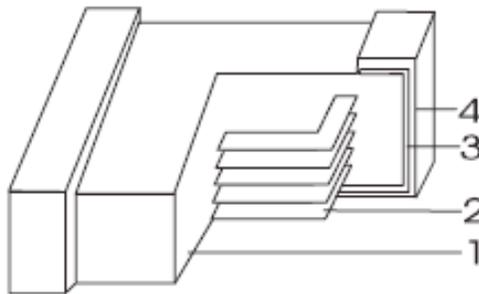


**1.6 x 0.8 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
 MSL Level = N/A

## Mechanical Dimensions & Materials



Series	L	W	T	a1,a2
AIMC-0603	1.60±0.20	0.80±0.15	0.80±0.15	0.30±0.20
	[0.063±0.008]	[0.031±0.006]	[0.031±0.006]	[0.012±0.008]



	Part Name	Material
1	Base Material	Ceramic Material
2	Internal Conductor	Ag
3	Terminal Electrode	Ag
4	Terminal Electrode	Ni-Sn

**Dimension: mm [inch]**

# Multilayer Ceramic Chip Inductor



AIMC-0603 Series

Request Samples

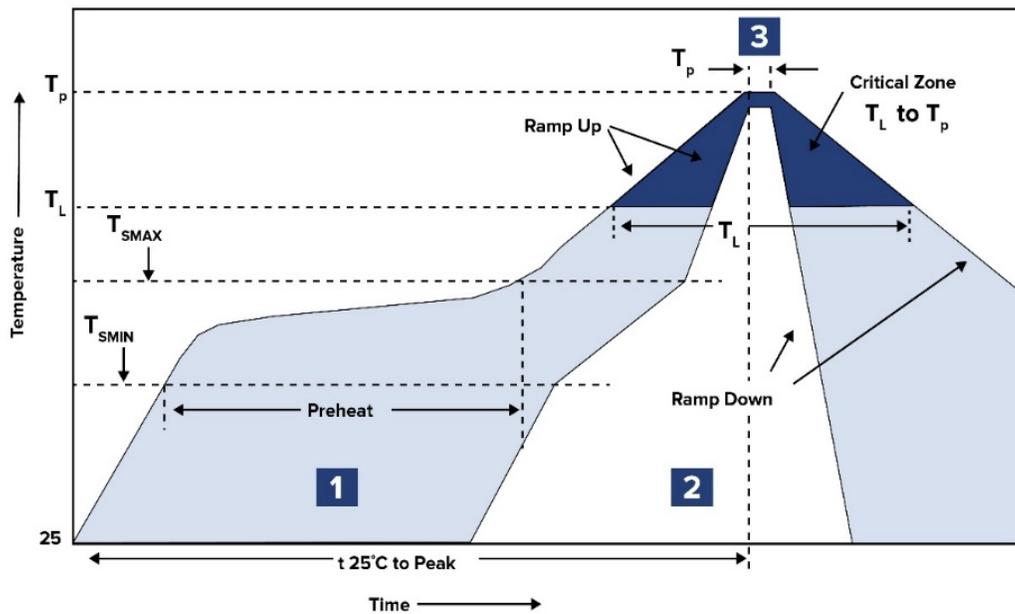


Check Inventory



1.6 x 0.8 x 0.8 mm  
RoHS/RoHS II Compliant  
MSL Level = N/A

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 90 sec.
3	Peak heat	$T_P$ 260°C±5°C	10 sec. MAX

# Multilayer Ceramic Chip Inductor



**AIMC-0603 Series**

Request Samples



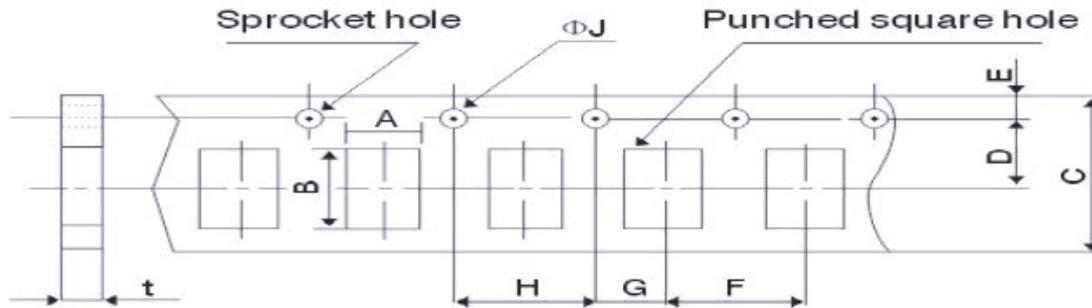
Check Inventory



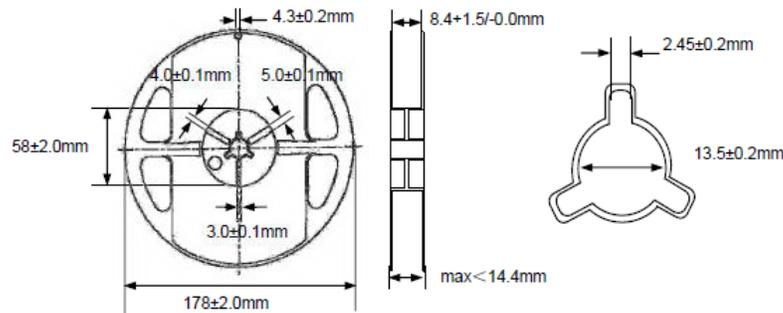
**1.6 x 0.8 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = N/A**

## Packing

**T: 4,000pcs / reel**

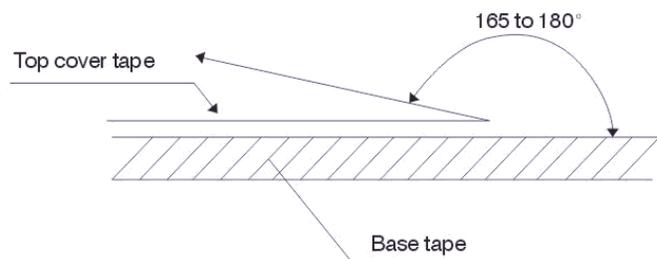


Codes	A	B	C	D	E	F	G	H	ΦJ	t(max)
AIMC-0603	1.0±0.2	1.8±0.25	8.0±0.3	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.5+0.1/-0	1.1



## Peeling strength of cover tape

0.3~0.7N (30gf~70gf)



Test condition:

- 1) peel angle: 165°~180° vs. carrier tape.
- 2) peel speed: 300 mm/min±10%.

**ATTENTION:** Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669  
 Phone: 512-371-6159 | Fax: 512-351-8858  
 For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

**REVISED: 08-09-19**

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## ABRACON:

[AIMC-0603-10NJ-T](#) [AIMC-0603-12NJ-T](#) [AIMC-0603-15NJ-T](#) [AIMC-0603-18NJ-T](#) [AIMC-0603-1N0S-T](#) [AIMC-0603-1N2S-T](#) [AIMC-0603-1N5S-T](#) [AIMC-0603-1N8S-T](#) [AIMC-0603-22NJ-T](#) [AIMC-0603-27NJ-T](#) [AIMC-0603-2N2S-T](#) [AIMC-0603-2N7S-T](#) [AIMC-0603-33NJ-T](#) [AIMC-0603-39NJ-T](#) [AIMC-0603-3N3S-T](#) [AIMC-0603-3N9S-T](#) [AIMC-0603-47NJ-T](#) [AIMC-0603-4N7S-T](#) [AIMC-0603-56NJ-T](#) [AIMC-0603-5N6S-T](#) [AIMC-0603-68NJ-T](#) [AIMC-0603-6N8J-T](#) [AIMC-0603-82NJ-T](#) [AIMC-0603-8N2J-T](#) [AIMC-0603-R10J-T](#) [AIMC-0603-R12J-T](#) [AIMC-0603-R15J-T](#) [AIMC-0603-R18J-T](#) [AIMC-0603-R22J-T](#)