

# MULTILAYER CHIP CERAMIC INDUCTORS

AIMC-0603

RoHS  
Compliant



1.6 x 0.8 x 0.8mm

## 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:

### PARAMETERS

ABRACON P/N:	AIMC-0603-xxx Series
Operating temperature:	-55°C to + 125°C
Storage temperature:	-55°C to + 125°C

Part No.	L(nH)	Tolerance	Q (MIN)	L,Q Test Freq.	SRF(MHz)	DCR(Ω)	Ir(mA)
				(MHz)	(min)	(max)	(max)
AIMC-0603-1N0	1.0	S, D	8	100	>10000	0.05	500
AIMC-0603-1N2	1.2	S, D	8	100	>10000	0.05	500
AIMC-0603-1N5	1.5	S, D	8	100	>10000	0.10	500
AIMC-0603-1N8	1.8	S, D	8	100	>10000	0.10	500
AIMC-0603-2N2	2.2	S, D	8	100	10000	0.10	500
AIMC-0603-2N7	2.7	S, D	10	100	9000	0.10	500
AIMC-0603-3N3	3.3	S, D, K	10	100	8000	0.12	500
AIMC-0603-3N9	3.9	S, D, K	10	100	7000	0.14	500
AIMC-0603-4N7	4.7	S, D, K	10	100	5500	0.16	500
AIMC-0603-5N6	5.6	S, D, K	10	100	4500	0.18	500
AIMC-0603-6N8	6.8	J, K	10	100	4000	0.22	500
AIMC-0603-8N2	8.2	J, K	10	100	3600	0.24	500
AIMC-0603-10N	10	J, K	12	100	3400	0.26	300
AIMC-0603-12N	12	J, K	12	100	2800	0.30	300
AIMC-0603-15N	15	J, K	12	100	2500	0.32	300
AIMC-0603-18N	18	J, K	12	100	2100	0.35	300
AIMC-0603-22N	22	J, K	12	100	1700	0.40	300
AIMC-0603-27N	27	J, K	12	100	1500	0.45	300
AIMC-0603-33N	33	J, K	12	100	1300	0.55	300
AIMC-0603-39N	39	J, K	12	100	1100	0.60	300
AIMC-0603-47N	47	J, K	12	100	1000	0.70	300
AIMC-0603-56N	56	J, K	12	100	900	0.75	300
AIMC-0603-68N	68	J, K	12	100	700	0.85	300
AIMC-0603-82N	82	J, K	12	100	600	0.95	300
AIMC-0603-R10	100	J, K	12	100	600	1.00	300
AIMC-0603-R12	120	J, K	8	50	500	1.30	300
AIMC-0603-R15	150	J, K	8	50	500	1.50	300
AIMC-0603-R18	180	J, K	8	50	400	1.80	300
AIMC-0603-R22	220	J, K	8	50	400	2.10	300
AIMC-0603-R27	270	J, K	8	50	350	2.40	300

### Test Conditions and equipments

**L, Q:** HP4291 Impedance Analyzer, 100MHz, 50mV  
**DCR:** HP4263A LCR meter  
**SRF:** HP4291 Impedance analyzer, HP8753 Network analyzer  
**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 :** Ordinary Temperature ( 5 to 35°C)  
**Humidity :** Ordinary Humidity (25 to 85% RH)  
**Atmospheric Pressure :** 86 to 106 kPa

## OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

AIMC-0603-   -

**Inductance Code**  
Please refer to the Electrical Spec Table

**Tolerance**  
S:  $\pm 0.3\text{nH}^*$   
D:  $\pm 0.5\text{nH}^*$   
J:  $\pm 5\%^*$   
K:  $\pm 10\%^*$

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

\*S for L = 1.0 ~ 5.6nH  
 D for L = 1.0 ~ 5.6nH  
 J for L = 6.8 ~ 270nH  
 K for L = 3.3 ~ 270nH

ABRACON IS  
ISO9001:2008  
CERTIFIED



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# MULTILAYER CHIP CERAMIC INDUCTORS

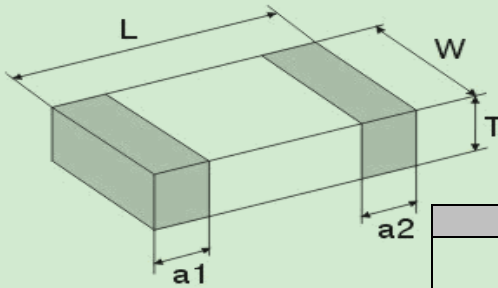


1.6 x 0.8 x 0.8mm

**RoHS**  
Compliant

AIMC-0603

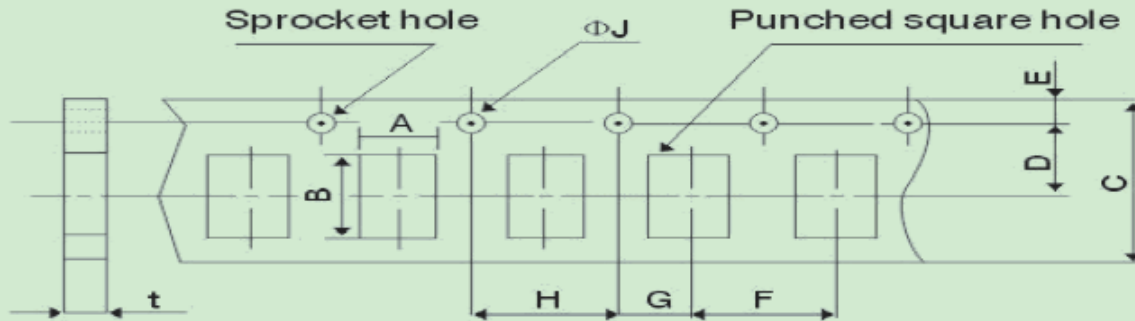
## OUTLINE DRAWING:



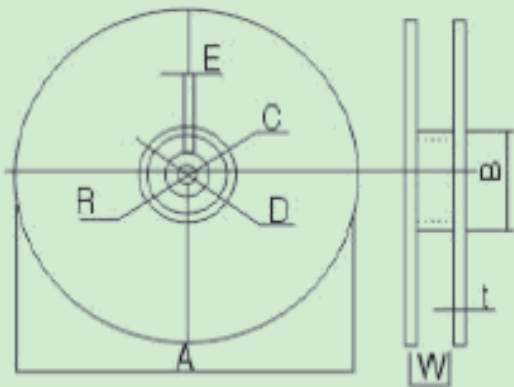
Dimension: mm [inch]

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

## TAPE & REEL: T = Tape and reel 4,000pcs/reel



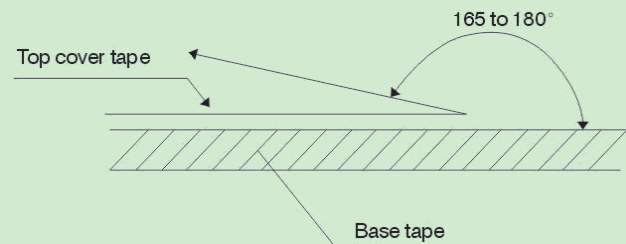
Codes	A	B	C	D	E	F	G	H	ΦJ	t(max)
AIMC-0603	1.05±0.15	1.9±0.15	8.0±0.3	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.5+0.1/-0	1.0±0.05



A	178±2
B	60±2
C	13.0±0.5
D	21.0±0.8
E	2.0±0.5
W	10.0±1.15
t	1.2±0.2
R	1.0±0.25

### 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%.

Dimension: mm