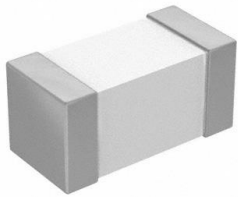


AIMC-0603-56NJ-T Datasheet

www.digi-electronics.com



DiGi Electronics Part Number	AIMC-0603-56NJ-T-DG
Manufacturer	Abracon LLC
Manufacturer Product Number	AIMC-0603-56NJ-T
Description	FIXED IND 56NH 300MA 750MOHM SMD
Detailed Description	56 nH Unshielded Multilayer Inductor 300 mA 750m Ohm Max 0603 (1608 Metric)

<https://www.DiGi-Electronics.com>



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

AIMC-0603-56NJ-T

Series:

AIMC-0603

Type:

Multilayer

Inductance:

56 nH

Current Rating (Amps):

300 mA

Shielding:

Unshielded

Q @ Freq:

12 @ 100MHz

Ratings:

-

Inductance Frequency - Test:

100 MHz

Package / Case:

0603 (1608 Metric)

Size / Dimension:

0.063" L x 0.031" W (1.60mm x 0.80mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

Ceramic

Tolerance:

±5%

Current - Saturation (Isat):

-

DC Resistance (DCR):

750mOhm Max

Frequency - Self Resonant:

900MHz

Operating Temperature:

-55°C ~ 125°C

Mounting Type:

Surface Mount

Supplier Device Package:

0603 (1608 Metric)

Height - Seated (Max):

0.037" (0.95mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

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(Ω)	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

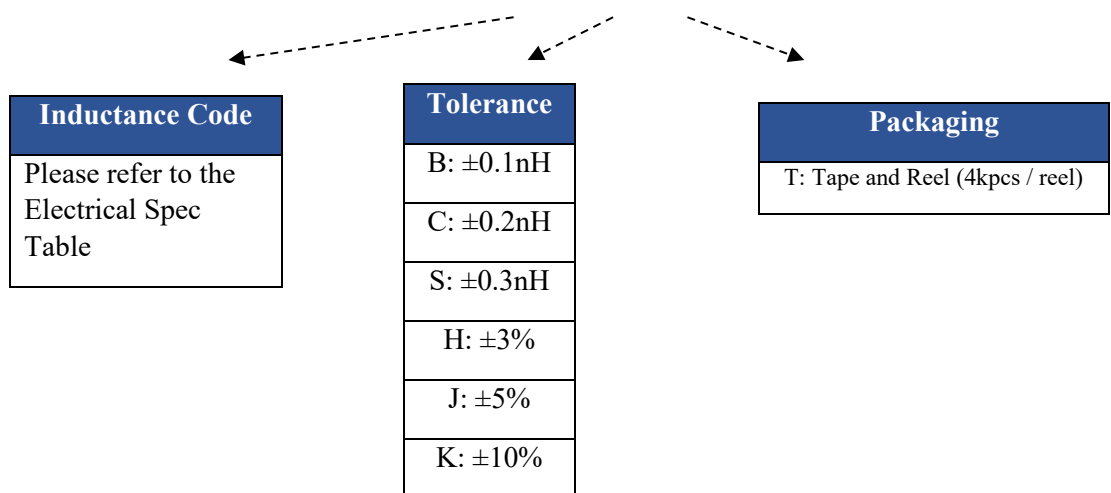
Temperature: $20 \pm 15^\circ\text{C}$

Humidity: $65 \pm 20\%$

Atmospheric Pressure: 86 to 106 kPa

Part Number Identification

AIMC-0603- -



Multilayer Ceramic Chip Inductor



AIMC-0603 Series

Request Samples

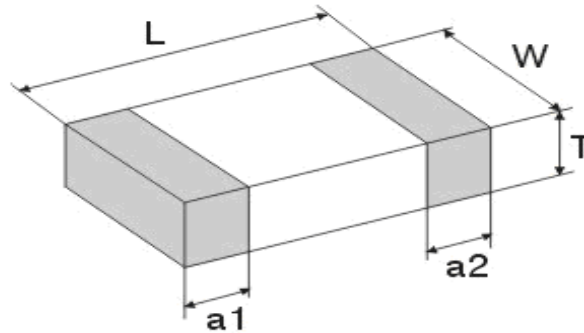


Check Inventory

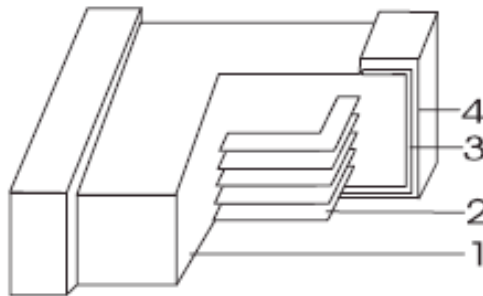


1.6 x 0.8 x 0.8 mm
RoHS/RoHS II Compliant
 MSL Level = N/A

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

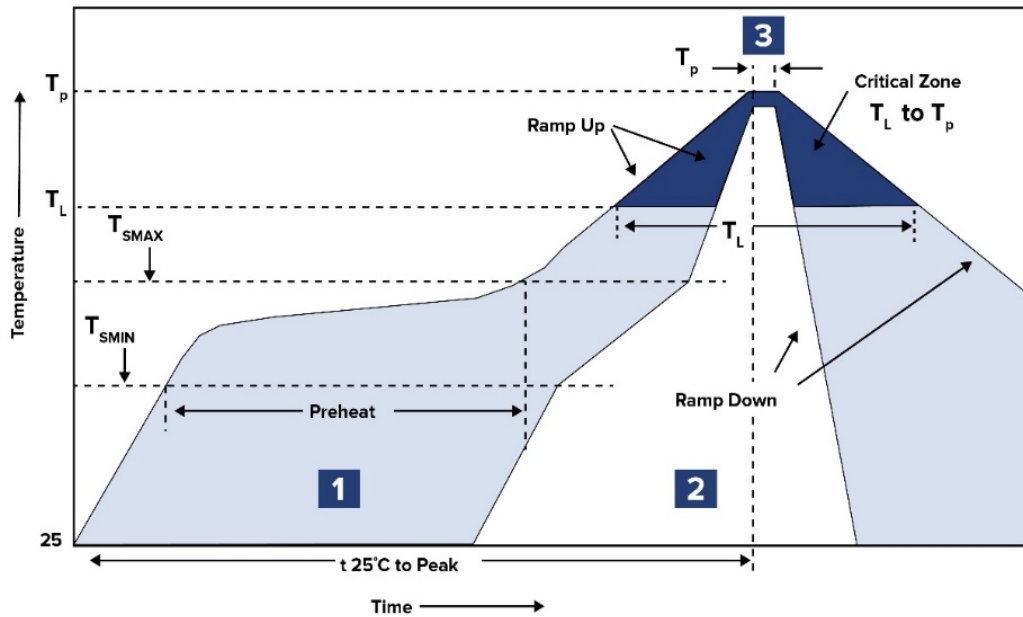


Check Inventory



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



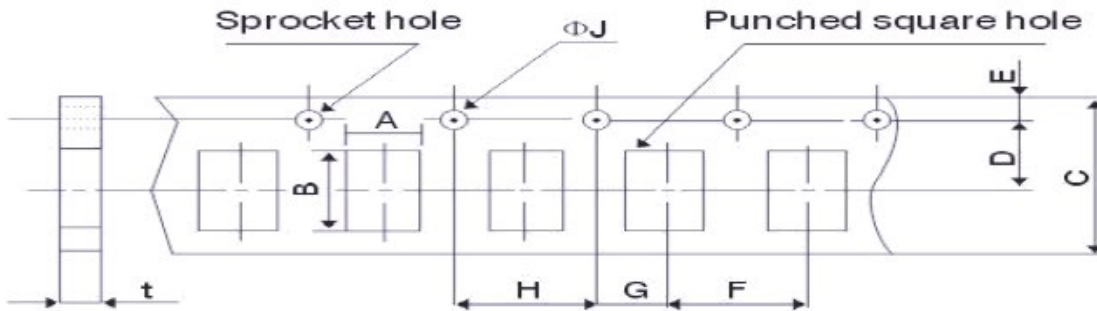
Check Inventory



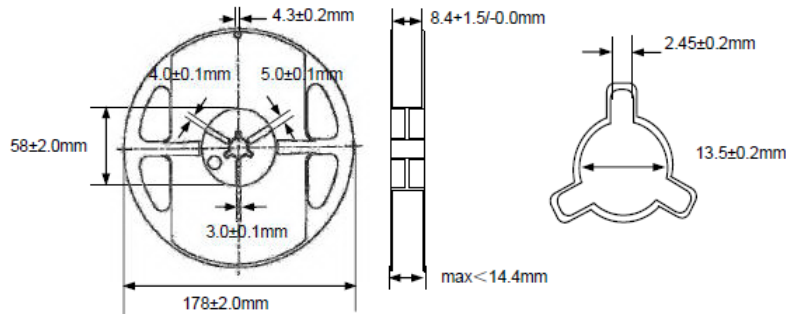
1.6 x 0.8 x 0.8 mm
RoHS/RoHS II Compliant
 MSL Level = N/A

Packing

T: 4,000pcs / reel

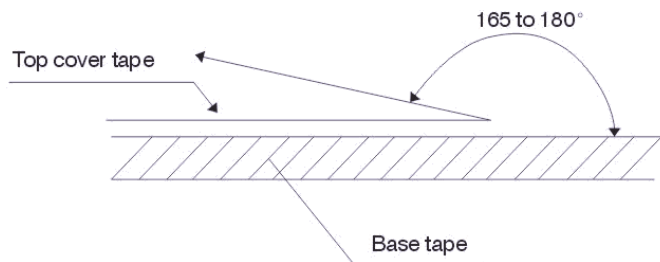


Codes	A	B	C	D	E	F	G	H	ΦJ	t(max)
AIMC-0603	1.0±0.2	1.8±0.25	8.0±0.3	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.5+0.1/-0	1.1



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%.

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