

# AIML-0603HC-3R3M-T Datasheet

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DiGi Electronics Part Number	AIML-0603HC-3R3M-T-DG
Manufacturer	<a href="#">Abracon LLC</a>
Manufacturer Product Number	AIML-0603HC-3R3M-T
Description	FIXED IND 3.3UH 600MA 400MOHM SM
Detailed Description	3.3 $\mu$ H Shielded Multilayer Inductor 600 mA 400mOhm 0603 (1608 Metric)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

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## Purchase and inquiry

Manufacturer Product Number:

AIML-0603HC-3R3M-T

Series:

AIML-0603HC

Type:

Multilayer

Inductance:

3.3  $\mu$ H

Current Rating (Amps):

600 mA

Shielding:

Shielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

1 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:

Ferrite

Tolerance:

$\pm$ 20%

Current - Saturation (Isat):

80mA

DC Resistance (DCR):

400mOhm

Frequency - Self Resonant:

70MHz

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

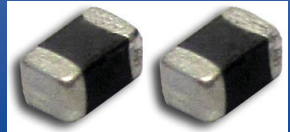
Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# Multilayer Ferrite Chip Inductor (High Current)



**AIML-0603HC Series**

Request Samples



Check Inventory



**1.6 x 0.8 x 0.8mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Features

- Monolithic structure for higher reliability, compact size, & lightweight
- Magnetically shielded design to eliminate cross coupling
- Excellent solderability and heat resistance for reflow soldering
- Perfect shape for PCB mounting with no polarity

## Applications

- DC/DC converter circuit for Front End Module such as Skyworks Solution.
- Portable AV equipment such as Digital Camera, Camcorder remote Control.

## Electrical Specifications

Part No.	L( $\mu$ H)	Tolerance	Test Freq.	SRF	DCR	Isat	Irms
		(%)	(MHz)	(MHz)	( $\Omega$ )	(mA)	(mA)
AIML-0603HC-R22M	0.22	M	1	200	0.10	1350	1250
AIML-0603HC-R33M	0.33	M	1	190	0.13	1250	1200
AIML-0603HC-R47M	0.47	M	1	180	0.15	1000	1100
AIML-0603HC-R68M	0.68	M	1	160	0.18	950	1150
AIML-0603HC-1R0M	1.0	M	1	125	0.20	650	1000
AIML-0603HC-1R5M	1.5	M	1	100	0.23	420	900
AIML-0603HC-1R8M	1.8	M	1	100	0.26	300	800
AIML-0603HC-2R2M	2.2	M	1	80	0.30	250	850
AIML-0603HC-2R7M	2.7	M	1	90	0.34	180	750
AIML-0603HC-3R3M	3.3	M	1	100	0.40	125	700
AIML-0603HC-4R7M	4.7	M	1	65	0.40	65	700
AIML-0603HC-6R8M	6.8	M	1	45	0.56	130	500
AIML-0603HC-100M	10	M	1	35	0.36	60	500

**Operating Temperature Range:** -55°C to + 125°C

**Storage Temperature Range:** -55°C to + 125°C

## Test Conditions and equipment

**L, Q:** HP4291 Impedance Analyzer DCR: HP4263A LCR meter

**SRF:** HP4291 Impedance analyzer

**Irms:** HP4291 Impedance Analyzer, DC power HP6632 and Adapter HP16200. Current when temperature of the product reaches +40°C.

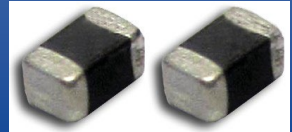
**Isat:** HP4291 Impedance Analyzer, DC power HP6632 and Adapter HP16200.  $\Delta L/L$  (initial)  $\geq$  -30%



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# Multilayer Ferrite Chip Inductor (High Current)

**AIML-0603HC Series**

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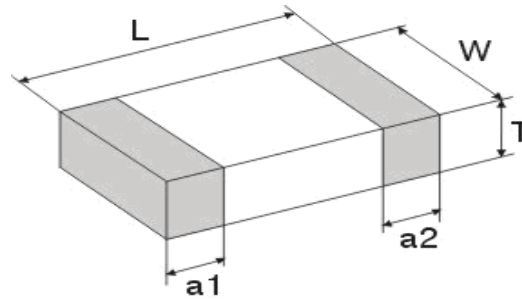


Check Inventory



**1.6 x 0.8 x 0.8mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Mechanical Specifications



L	W	T	a1, a2
1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20

## Part Identification

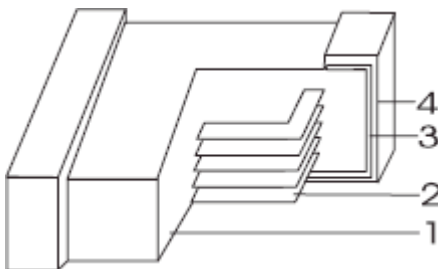
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**Inductance Code**  
 Please refer to the table above

**Tolerance**  
 M: ±20%

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

## Materials



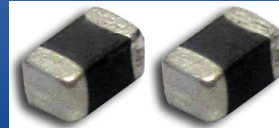
	Part Name	Material
1	Base Material	Ferrite (Ni-Cu-Zn series)
2	Internal Conductor	Ag
3	Terminal Electrode	Ag
4	Electrode Plating	Ni-Sn



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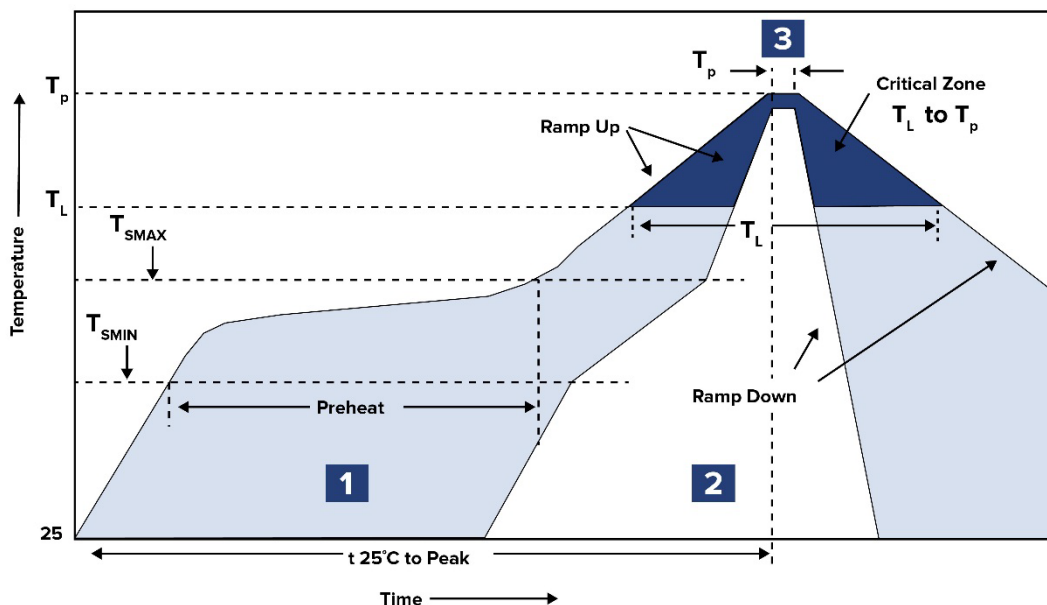


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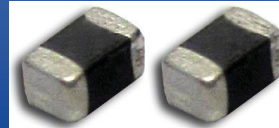


**1.6 x 0.8 x 0.8mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_p$ 260°C±5°C	3~4 sec. MAX



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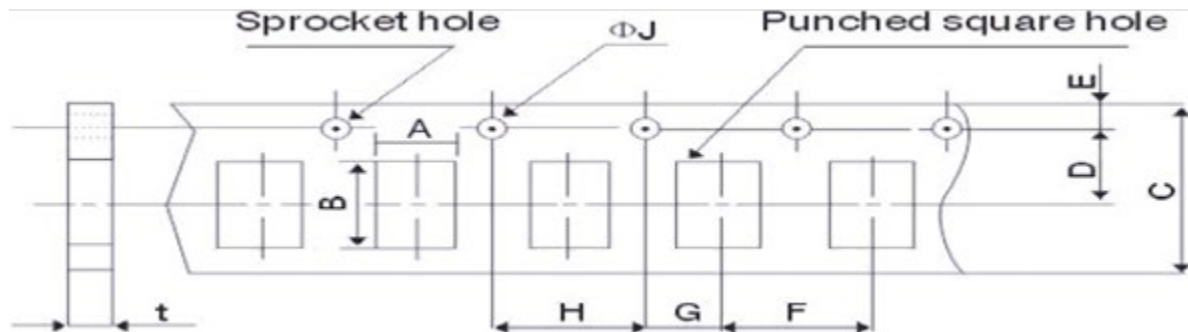
Check Inventory



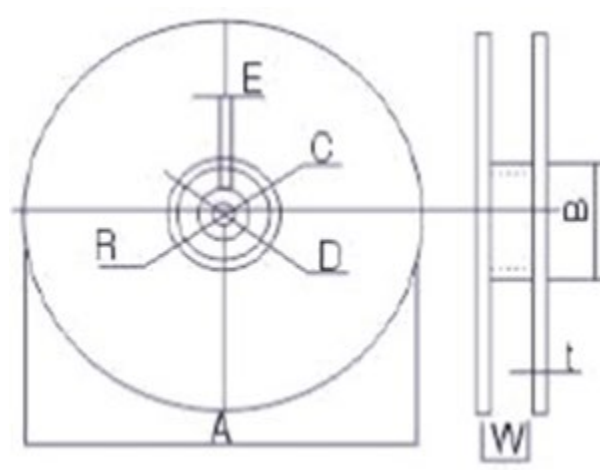
**1.6 x 0.8 x 0.8mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

T: 4,000pcs/Reel



A	B	C	D	E	F	G	H	ΦJ	t(max)
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

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