

# Automotive Multilayer Ceramic Chip Inductor



**AIMC-Q0603**

Request Samples



Check Inventory



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

## Features

- PPAP ready and supported
- TS16949 certified production lines
- AEC-Q200 (grade 1) qualified
- Ceramic base with high SRF
- Excellent DCR and current carrying characteristics.
- Multilayer monolithic construction yields high reliability
- Tight tolerance down to  $\pm 0.1\text{nH}$

## Applications

- Automotive applications
- Bluetooth, W-LAN, Broadband Network
- Impedance matching networks
- Filtering for high frequency communication circuits
- Video cameras, displays, and other electronic devices.

## Electrical Specifications

Part Number	Inductance (nH)	Tolerance	Quality Factor min.	L/Q Freq. (MHz)	SRF (GHz) min.	DCR ( $\Omega$ ) max.	Rated Current (mA) max.
AIMC-Q0603-1N0	1.0	S	8	100	10.00	0.05	1000
AIMC-Q0603-1N2	1.2	S	8	100	10.00	0.05	1000
AIMC-Q0603-1N5	1.5	S	8	100	10.00	0.10	1000
AIMC-Q0603-1N8	1.8	S	8	100	10.00	0.10	1000
AIMC-Q0603-2N2	2.2	S	8	100	8.00	0.10	1000
AIMC-Q0603-2N7	2.7	S	10	100	7.00	0.13	1000
AIMC-Q0603-3N3	3.3	S	10	100	6.00	0.13	1000
AIMC-Q0603-3N9	3.9	S	10	100	6.00	0.15	1000
AIMC-Q0603-4N7	4.7	S	10	100	5.00	0.20	1000
AIMC-Q0603-5N6	5.6	S	10	100	4.00	0.23	700
AIMC-Q0603-6N8	6.8	J	10	100	4.00	0.25	700
AIMC-Q0603-8N2	8.2	J	10	100	3.50	0.28	600
AIMC-Q0603-10N	10	J	12	100	3.40	0.30	600
AIMC-Q0603-12N	12	J	12	100	2.60	0.35	600
AIMC-Q0603-15N	15	J	12	100	2.30	0.40	600
AIMC-Q0603-18N	18	J	12	100	2.00	0.45	600
AIMC-Q0603-22N	22	J	12	100	1.60	0.50	600
AIMC-Q0603-27N	27	J	12	100	1.40	0.55	600
AIMC-Q0603-33N	33	J	12	100	1.20	0.60	600
AIMC-Q0603-39N	39	J	12	100	1.10	0.65	500
AIMC-Q0603-47N	47	J	12	100	0.90	0.70	500
AIMC-Q0603-56N	56	J	12	100	0.90	0.75	500
AIMC-Q0603-68N	68	J	12	100	0.70	0.85	400
AIMC-Q0603-82N	82	J	12	100	0.60	0.95	300
AIMC-Q0603-R10	100	J	12	100	0.60	1.00	300
AIMC-Q0603-R12	120	J	8	50	0.50	1.20	300

# Automotive Multilayer Ceramic Chip Inductor



**AIMC-Q0603**

Request Samples



Check Inventory



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

## Electrical Specifications (Cont'd)

### Test Conditions and equipment

**L, Q:** High Accuracy RF Impedance /Material Analyzer-E4991A+16197A

**DCR:** High Accuracy Milliohmmeter Agilent 4338B

**Rated Current:** DC Power Supplier, Current Meter, Thermometer.  $\Delta T \leq 25^\circ\text{C}$

**Operating Temperature:**  $-55^\circ\text{C} \sim +125^\circ\text{C}$  (including self-temperature rise)

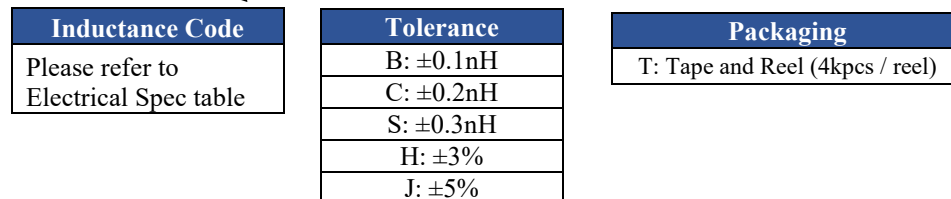
**Storage Temperature:**  $-10^\circ\text{C} \sim +40^\circ\text{C}$ , RH 70% (Max.)

AIMC-Q0603 is AEC-Q200 qualified

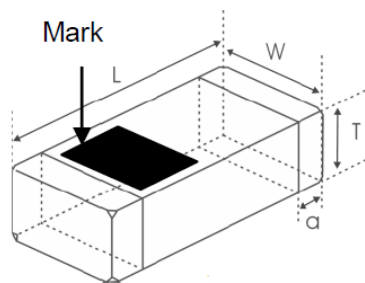
AIMC-Q0603 Series is **RoHS Compliant and Pb free**

## Part Identification

AIMC - Q0603 -   -



## Mechanical Specifications



Series	L	W	T	a
AIMC-Q0402	$1.00 \pm 0.1$	$0.50 \pm 0.1$	$0.50 \pm 0.1$	0.10~0.30
	[0.039±0.004]	[ 0.02±0.004]	[ 0.02±0.004]	[0.004~0.011]

Dimension: mm [inch]



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)

REVISION: IR 11-28-22

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# Automotive Multilayer Ceramic Chip Inductor



AIMC-Q0603

Request Samples

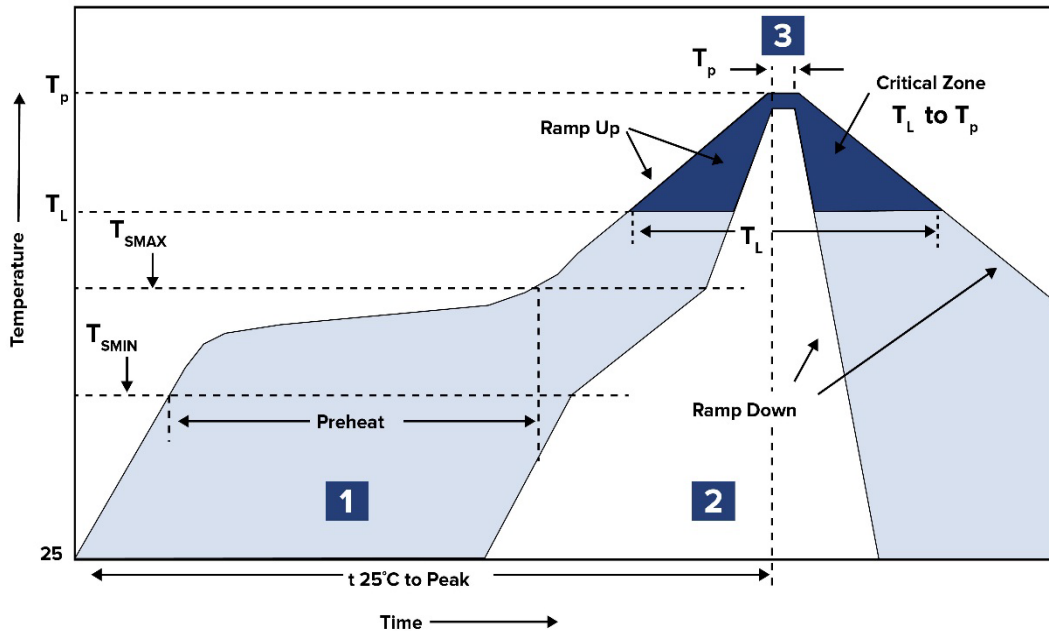


Check Inventory



1.6 x 0.8 x 0.8 mm  
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 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_P$ 260°C	30 sec. MAX

# Automotive Multilayer Ceramic Chip Inductor



**AIMC-Q0603**

Request Samples



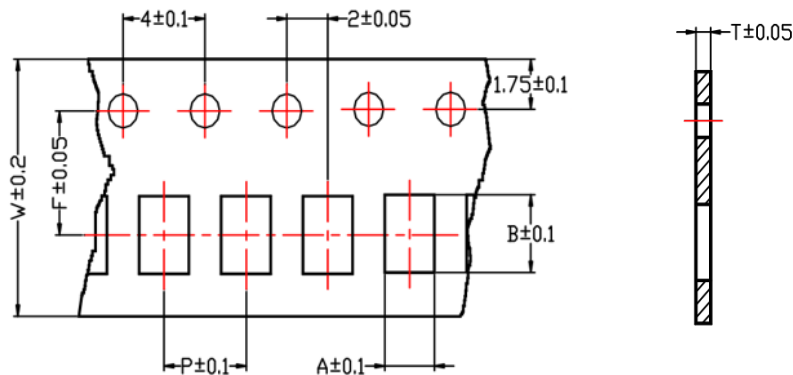
Check Inventory



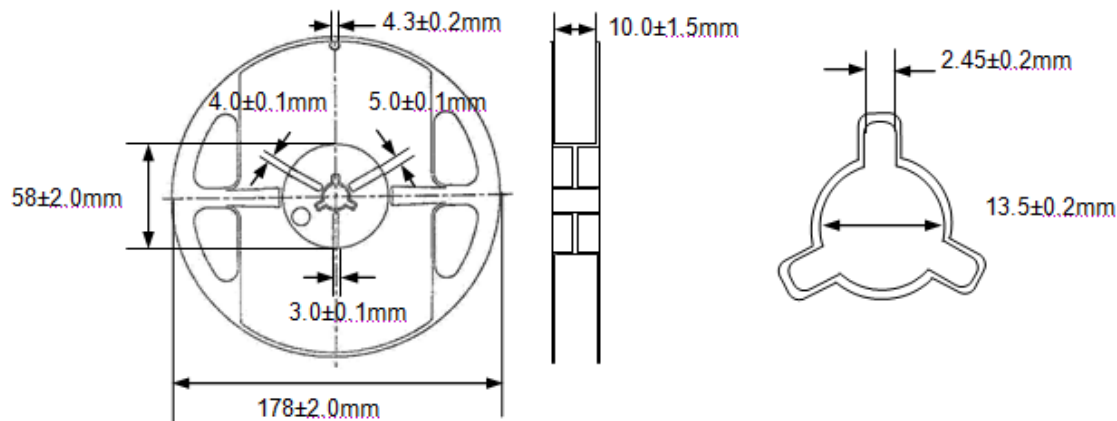
**1.6 x 0.8 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**Tape & Reel: 4,000 pcs/reel**



Codes	A	B	T	W	P	F
AIMC-Q0402	0.98	1.80	0.95	8.0	4.0	3.5



**Dimension: mm**

**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)

**REVISION: IR 11-28-22**

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [RF inductors - SMD category](#):*

*Click to view products by [Abracon manufacturer](#):*

Other Similar products are found below :

[MHL1ECTTP82NJ](#) [MHL1ECTTP8N2J](#) [CIH10T12NJNC](#) [B82498B1332J000](#) [B82498B3121J000](#) [0805WL220GT](#) [1008WL101GT](#)  
[0805WL681GT](#) [IWC0402D27NR-3G](#) [IWC0603F68NR-3G](#) [IWC0402AR10R-3G](#) [0603WL470JT](#) [IWC0402D33NR-3G](#) [IWC0603F47NR-3G](#)  
[0805WL151JT](#) [IWC0402A68NR-3G](#) [IWC0402AR12R-3G](#) [IWC0402A82NR-3G](#) [IWC0402B39NR-3G](#) [IWC0603CR12R-3G](#)  
[IWC0603AR33R-3G](#) [IWC0603BR18R-3G](#) [IWC0603F39NR-3G](#) [IWC0603BR22R-3G](#) [IWC0402A47NR-3G](#) [IWC0603AR27R-3G](#)  
[IWC0603F27NR-3G](#) [IWC1008DR68R-3G](#) [IWC1008FR12R-3G](#) [IWC1008FR18R-3G](#) [IWC1008J33NR-3G](#) [IWC1008J82NR-3G](#)  
[IWC1008DR47R-3G](#) [IWC1008J18NR-3G](#) [IWC0805E22NR-3G](#) [IWC1008DR82R-3G](#) [IWC0805E33NR-3G](#) [IWC1008J68NR-3G](#)  
[IWC0805D82NR-3G](#) [IWC0805DR10R-3G](#) [IWC0805E39NR-3G](#) [IWC1008DR39R-3G](#) [IWC0805DR15R-3G](#) [IWC1008J39NR-3G](#)  
[IWC1008J27NR-3G](#) [IWC0805DR18R-3G](#) [IWC0805E68NR-3G](#) [IWC1008ER27R-3G](#) [IWC1008FR10R-3G](#) [IWC1008J22NR-3G](#)