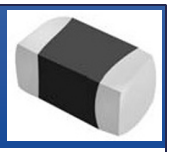
SMD Multilayer Chip Varistor



AMCV-0402LC Series

Request Samples | Check Inventory

1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- SMD type, small size suitable for high density mounting
- Excellent clamping ratio and strong capability of voltage surge suppression
- Excellent solderability (Ni, Sn plating)
- Green, meet RoHS requirements.

Applications

- Transient voltage protection and voltage surge suppression for LED lighting
- Suitable for LCD-TV, STB, Switch, Router, PLC, Security System, smart meters, mobile phones
- Suppressing Induced / switching over-voltage caused by lightning and power
- Protecting DC-DC Module, I/O ports, IC driver

Electrical Specifications

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Volts/Amps		Rated Single Pulse Transient		Capacitance (Typ)
Test Condition	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	0.5VRMS @1MHz
	DC	AC RMS						
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	VDC	VAC	VB	VC[1]	VC[2]	E_T	I_P	C
AMCV-0402LC-140-C100	14.0	10.0	16.0-22.0	30	39	0.005	2	10
AMCV-0402LC-140-C120	14.0	10.0	16.0-22.0	30	39	0.005	2	12
AMCV-0402LC-180-C050	18.0	12.7	22.0-28.0	40	48	0.005	2	5
AMCV-0402LC-180-C100	18.0	12.7	22.0-28.0	40	48	0.005	2	10
AMCV-0402LC-260-C030	26.0	18.4	31.0-38.0	58	70	0.003	1	3
AMCV-0402LC-260-C100	26.0	18.4	31.0-38.0	58	70	0.005	2	10

Vc[1], Maximum peak voltage across the varistor measured at a specified pulse current and waveform.

Energy Rating	Pulse & Waveform
0.00- 0.05 Joule	1A, 8/20μs
0.10 Joule	2A, 8/20μs

Vc[2], Maximum peak voltage across the varistor measured at 30ns after initiation of pulse on IEC61000-4-2 30A/8KV.

Test Conditions:

Operating Temperature: -55°C to +125°C
Storage: Temperature 10°C to +50°C, RH<60%, Max. Humidity <70% RH

Items	Test Methods and Remarks
Varistor Voltage at 1mA DC (V_B)	Measuring current: 1mA DC, Duration: 0.2 to 2 sec
Capacitance (C)	Measure source: 1.0 V_{RMS}, Test frequency: 1kHz.
Clamping Voltage (V_C)	Measuring source: 8/20us waveform

ABRACON

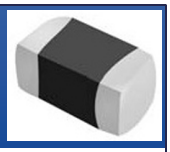
12117 Bee Caves Rd, Bldg-3, Suite 200
Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release : 3/26/2026

ABRACON IS ISO9001-2015 CERTIFIED

Downloaded from Arrow.com.

SMD Multilayer Chip Varistor



AMCV-0402LC Series

Request Samples | Check Inventory

1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

a. Ambient Temperature: 20±15℃

b. Relative Humidity: 65±20%

c. Air Pressure: 86 kPa to 106 kPa

AMCV-0402LC Series is RoHS?RoHS II Compliant and Pb free

MSL level = 1

Part Number Identification

AMCV-0402LC-□□□ - C□□ □ -□

Working Voltage (VDC)	Capacitance Code	Capacitance Tolerance	Packaging
Please refer to the table above	Please refer to the table above	N=±30% Y=+100%, -50% G=+0%, -60%	T: Tape and Reel (refer to packaging section)

Part Marking

No Marking

ABRACON

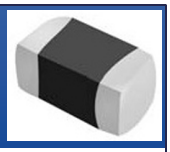
12117 Bee Caves Rd, Bldg-3, Suite 200
Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release : 3/26/2026

ABRACON IS ISO9001-2015 CERTIFIED

Downloaded from Arrow.com.

SMD Multilayer Chip Varistor

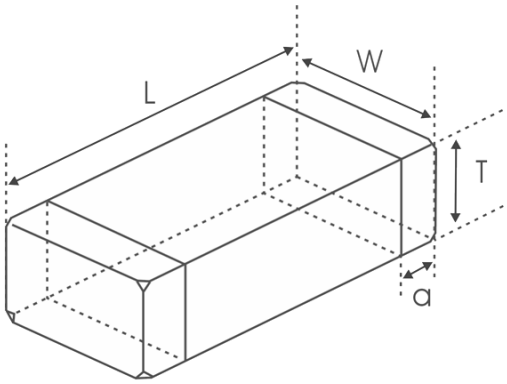


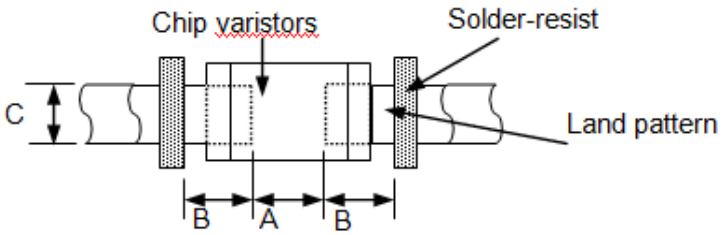
AMCV-0402LC Series

Request Samples Check Inventory

1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications

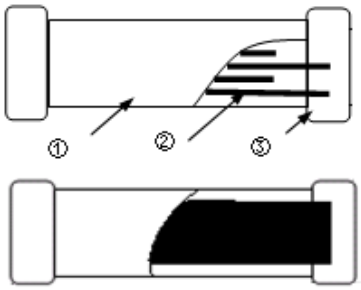


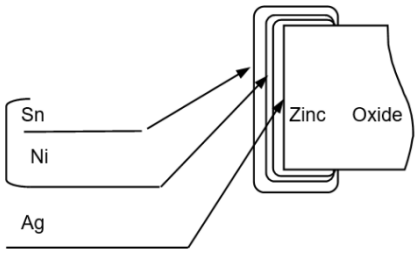


Series	L	W	T	a	A	B	C
AMCV-0402LC	1.0±0.15	0.5±0.15	0.5±0.15	0.25±0.1	0.45～0.55	0.40～0.50	0.45～0.55

Dimensions: mm

Materials





	Part Name	Material
1	Base Material	ZnO
2	Internal Conductor	Ag-Pd
3	Terminal Electrode	Ag (Inner layer) Ni-Sn (Outer layer)

ABRACON

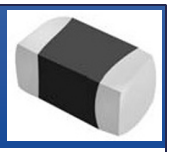
12117 Bee Caves Rd, Bldg-3, Suite 200
Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release : 3/26/2026

ABRACON IS ISO9001-2015 CERTIFIED

Downloaded from Arrow.com.

SMD Multilayer Chip Varistor

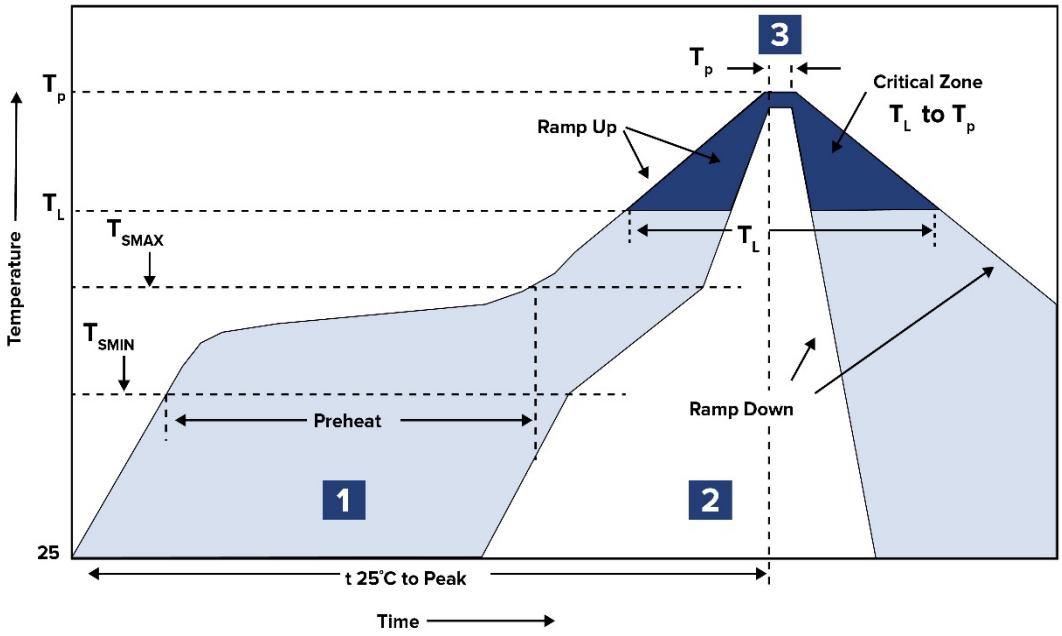


AMCV-0402LC Series

Request Samples Check Inventory

1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ 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 Max.	10 sec. MAX

Ref Paste: Sn/3.0Ag/0.5Cu (Lead-Free)
Max ramp up rate:3°C/Sec
Max ramp down rate:6°C/Sec
Maximum reflows: 2

ABRACON

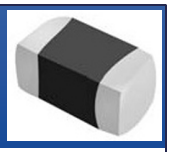
12117 Bee Caves Rd, Bldg-3, Suite 200
Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release : 3/26/2026

ABRACON IS ISO9001-2015 CERTIFIED

Downloaded from Arrow.com.

SMD Multilayer Chip Varistor



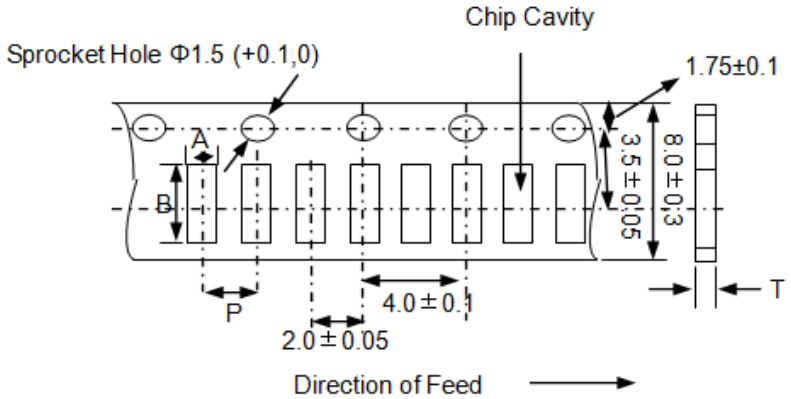
AMCV-0402LC Series

Request Samples | Check Inventory

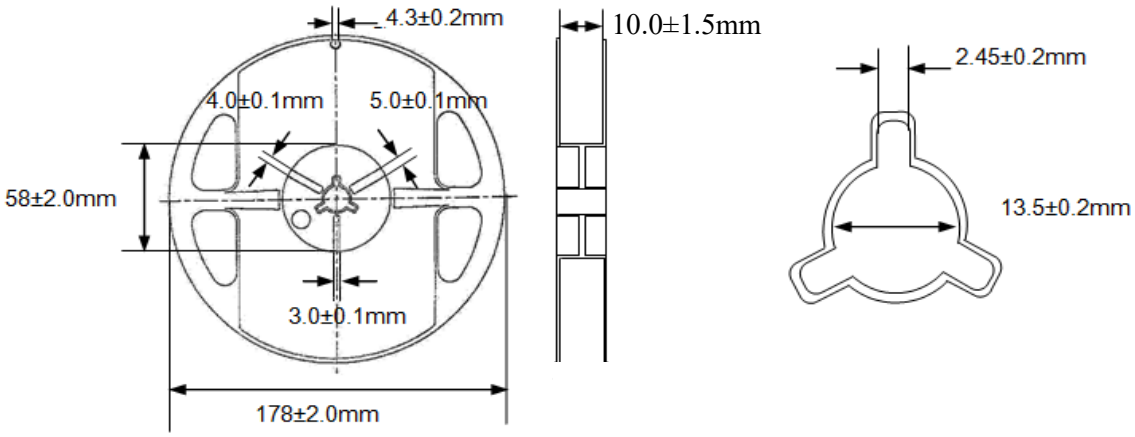
1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 10,000 pcs/reel



A	B	P	T (max)
0.65±0.1	1.15±0.1	2.0±0.05	0.8



Dimensions: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

ABRACON

12117 Bee Caves Rd, Bldg-3, Suite 200
Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release : 3/26/2026

ABRACON IS ISO9001-2015 CERTIFIED

Downloaded from Arrow.com.