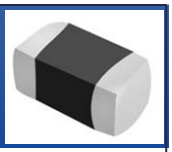
SMD Multilayer Chip Varistor



AMCV-1812H Series

Request Samples | Check Inventory

4.5 x 3.2 x 3.2mm
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)

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 Voltage		Rated Single Pulse Transient		
Test Condition	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	Nominal Current 8/20μs
	DC	AC RMS						
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps	Amps
Symbol	V_{WDC}	V_{WAC}	VB	VC	IC	E_T	I_P	I_n
AMCV-1812H-090	9	6.4	14.0 [12.0-16.0]	30	5.0	0.5	800	500
AMCV-1812H-180	18	12.7	25.0 [22.0-28.0]	45	5.0	1.3	2000	1200
AMCV-1812H-300	30	21.3	42.0 [37.0-46.0]	70	5.0	2.0	2000	1200
AMCV-1812H-380	38	30.0	50.0 [46.0-54.0]	80	5.0	2.5	2000	1200
AMCV-1812H-480	48	34.1	60.0 [54.0-67.0]	110	5.0	3.0	2000	1200
AMCV-1812H-560	56	40.0	68.0 [61.0-75.0]	125	5.0	3.5	2000	1200
AMCV-1812H-600	60	46.0	76.0 [69.0-83.0]	130	5.0	3.0	2000	1200
AMCV-1812H-650	65	50.0	82.0 [73.0-91.0]	135	5.0	7.5	3000	1800
AMCV-1812H-850	85	60.0	100.0 [90.0-110.0]	165	5.0	7.0	1500	1000
AMCV-1812H-101	100	75.0	120.0 [108.0-132.0]	200	5.0	7.0	1500	1000
AMCV-1812H-121	125	95.0	150.0 [135.0-165.0]	260	5.0	0.5	800	500
AMCV-1812H-151	150	115	180.0 [162.0-198.0]	325	5.0	0.5	500	300

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

Items	Test Methods and Remarks
Varistor Voltage at 1mA DC (V_B)	Measuring current: 1mA DC Duration: 0.2 to 2 sec
Clamping Voltage (V_C)	Measuring source: 8/20us waveform

EOL

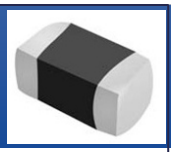
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SMD Multilayer Chip Varistor

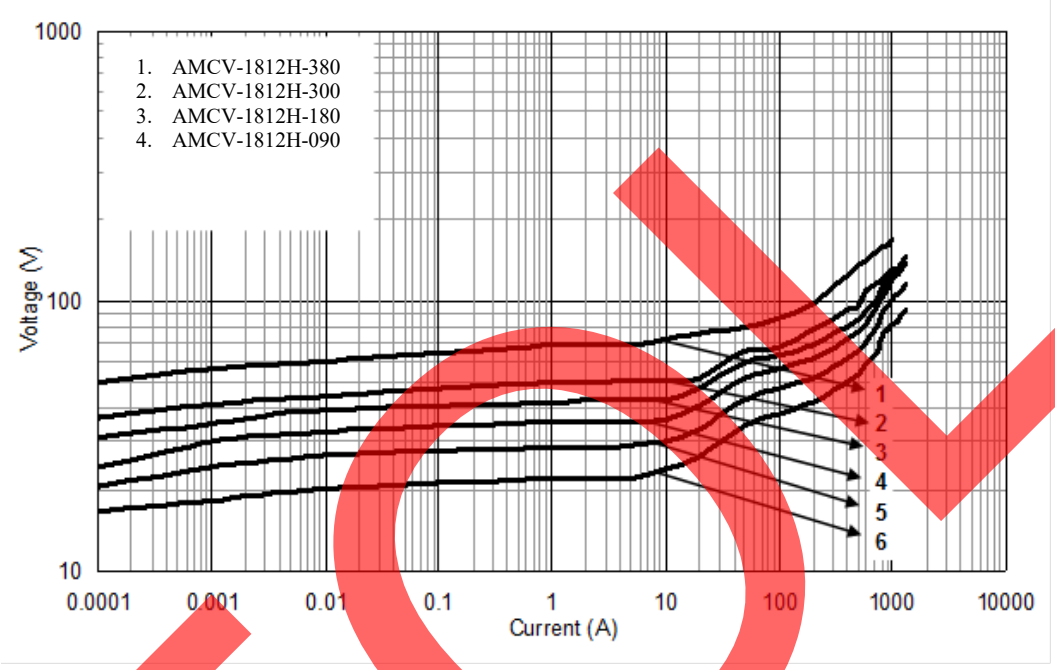


AMCV-1812H Series

Request Samples | Check Inventory

4.5 x 3.2 x 3.2mm
RoHS/RoHS II Compliant
MSL Level = 1

Operating Temperature: -55˚C ~ +125˚C.
Storage Condition: -10˚C ~ +40˚C (with packaging) and R.H. 70 % max.
AMCV-1812H Series is RoHS Compliant and Pb free.



EOL

Part Identification

AMCV-1812H- [ ] - [ ]

Voltage Code	Packaging
Please refer to the table above	T: Tape and Reel (refer to packaging section)

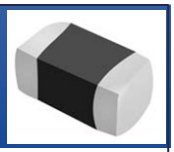
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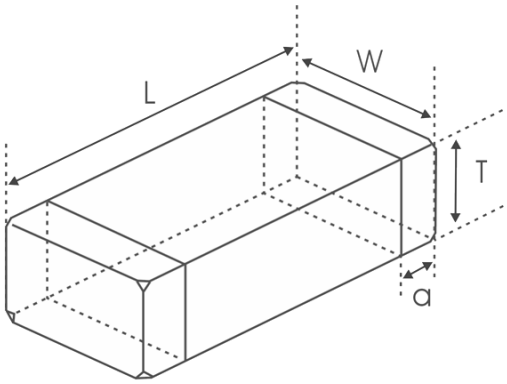


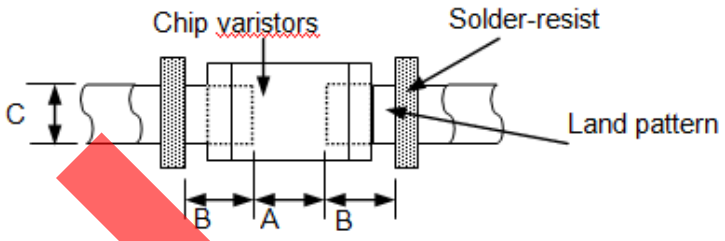
AMCV-1812H Series

Request Samples | Check Inventory

4.5 x 3.2 x 3.2mm
RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications



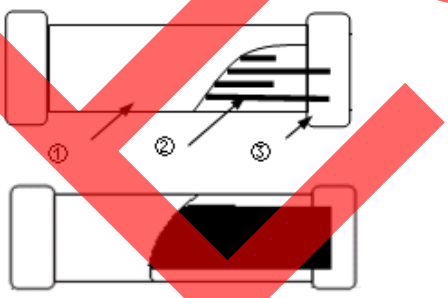


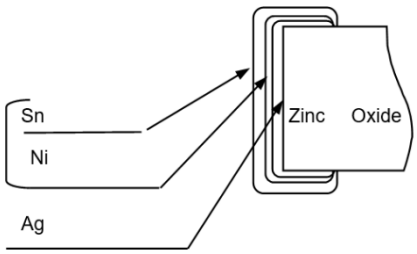
Series	L	W	T	a	A	B	C
AMCV-1812H	4.5±0.40	3.2±0.30	3.2 Max.	0.25~1.0	2.8~3.0	1.5~1.8	3.3~3.6

Dimensions: mm

EOL

Materials





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

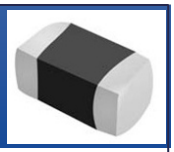
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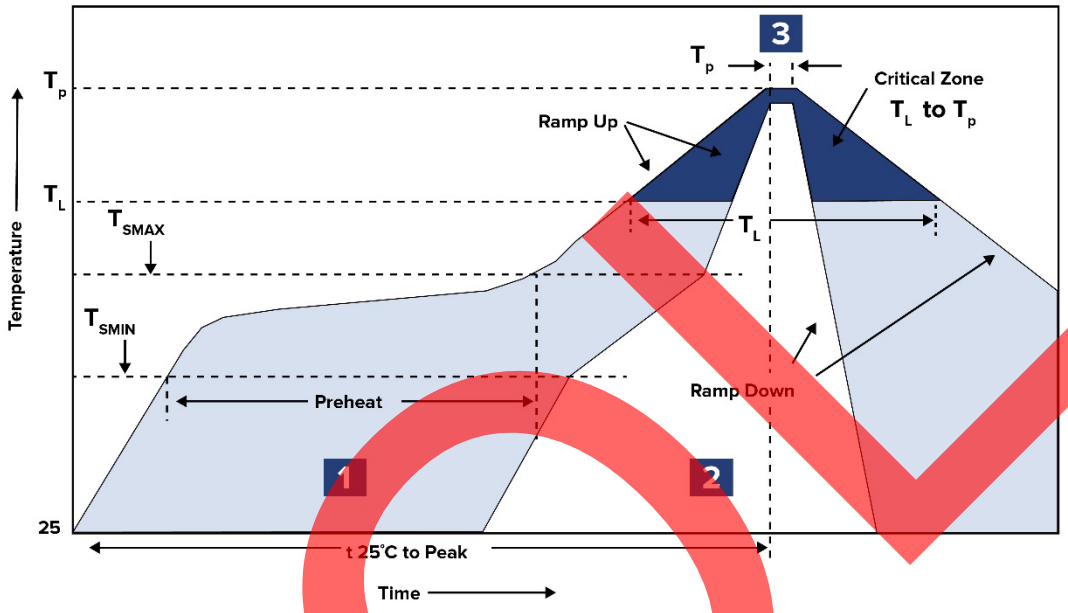


AMCV-1812H Series

Request Samples | Check Inventory

4.5 x 3.2 x 3.2mm
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. Solder paste: Sn/3.0Ag/0.5Cu
Ramp up rate: 3°C/s Max.
Ramp down rate: 6°C/s Max.

EOL

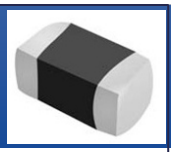
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AMCV-1812H Series

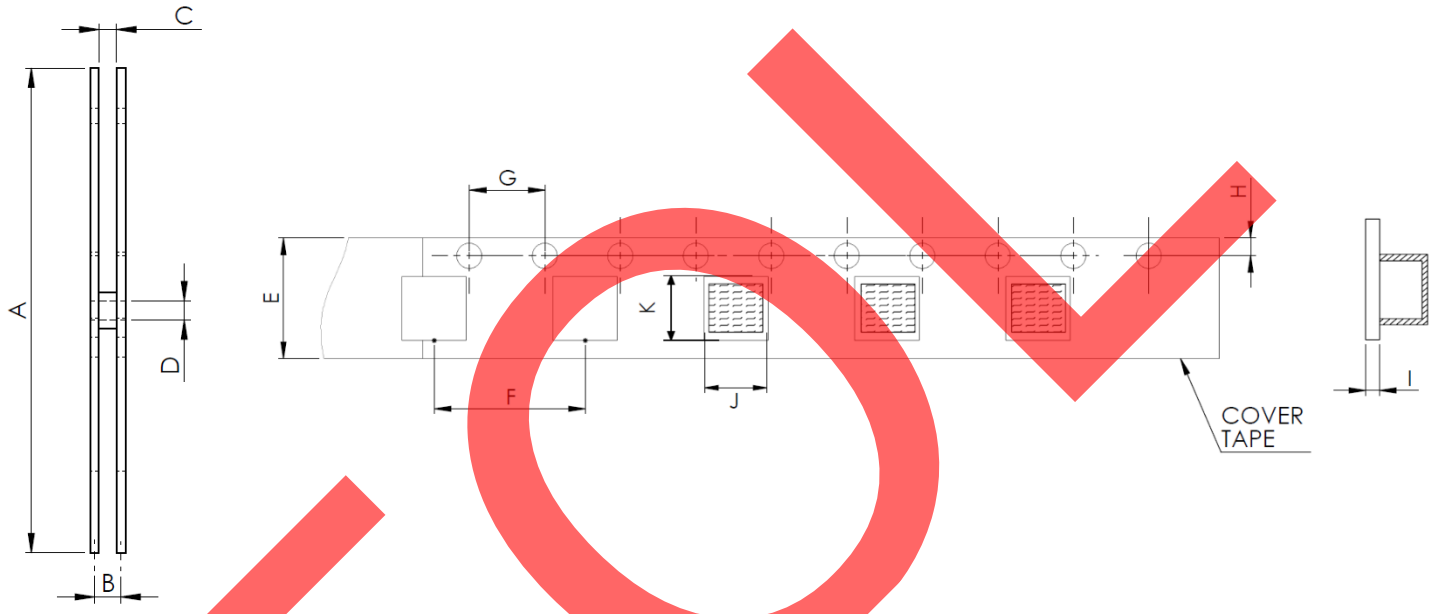
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4.5 x 3.2 x 3.2mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel:

4,000 pcs/reel (Part Numbers: AMCV-1812H-090, AMCV-1812H-180, AMCV-1812H-300, AMCV-1812H-380, AMCV-1812H-480)
2,000 pcs/reel (Part Numbers: All others)



EOL

A	C	E	K	J	H	F	G	I
330	12.4	12	5.2	3.8	1.75	8	4	0.33

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.

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