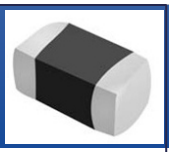
SMD Multilayer Chip Varistor



AMCV-1210H Series

Request Samples | Check Inventory

3.2 x 2.5 x 2.5mm
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}	V_B	V_C	I_C	E_T	I_P	I_N
AMCV-1210H-090	9	6.4	14.0 [12.0-16.0]	30	5.0	0.5	400	250
AMCV-1210H-180	18	12.7	25.0 [22.0-28.0]	45	5.0	1.5	1000	700
AMCV-1210H-300	30	21.3	42.0 [37.0-46.0]	70	5.0	2.0	1000	700
AMCV-1210H-380	38	30.0	50.0 [46.0-54.0]	80	5.0	2.5	1000	700
AMCV-1210H-480	48	34.1	60.0 [54.0-67.0]	110	5.0	3.0	1000	700
AMCV-1210H-560	56	40.0	68.0 [61.0-75.0]	125	5.0	4.0	1200	800
AMCV-1210H-600	60	46.0	76.0 [69.0-83.0]	130	5.0	4.0	1200	800
AMCV-1210H-650	65	50.0	82.0 [73.0-91.0]	135	5.0	4.0	1200	800
AMCV-1210H-850	85	60.0	100.0 [90.0-110.0]	165	5.0	5.0	1500	1000
AMCV-1210H-101	100	75.0	120.0 [108.0-132.0]	200	5.0	5.0	1000	700

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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

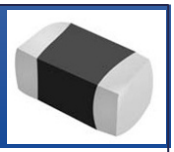
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SMD Multilayer Chip Varistor



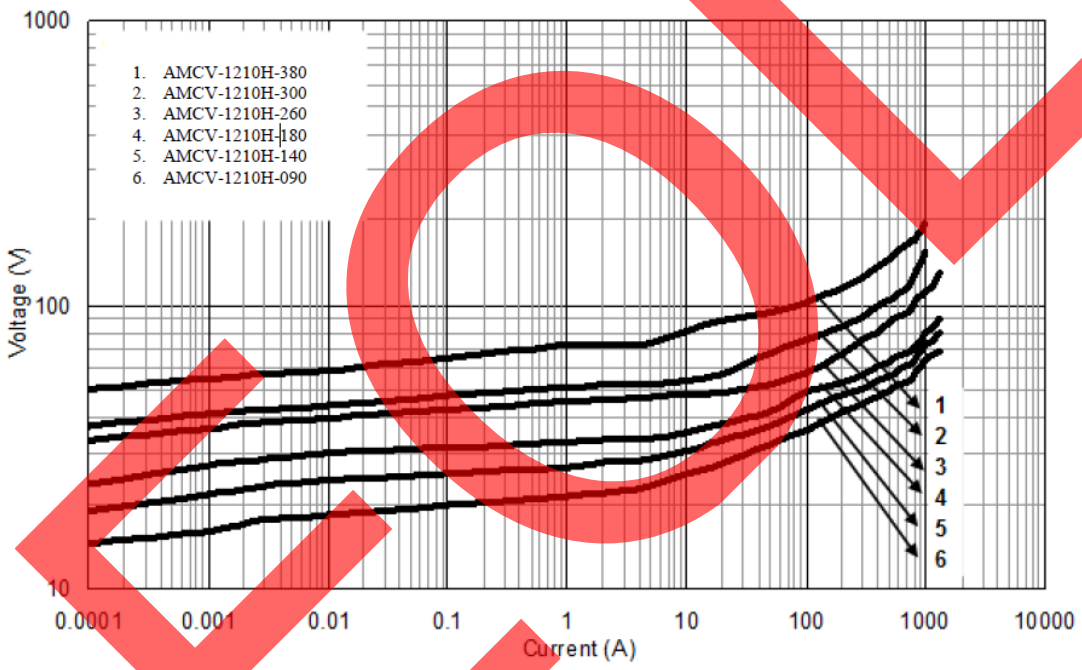
AMCV-1210H Series

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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

Operating Temperature: -55˚C ~ +125˚C.
Storage Condition: -10˚C ~ +40˚C (with packaging) and R.H. 70 % max.
AMCV-1210H Series is RoHS Compliant and Pb free.



EOL

Part Identification

AMCV-1210H- ☐ - ☐

Voltage Code
Please refer to the table above

Packaging
T: Tape and Reel (refer to packaging section)
Blank: Bulk

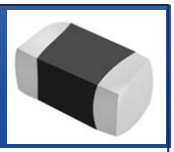
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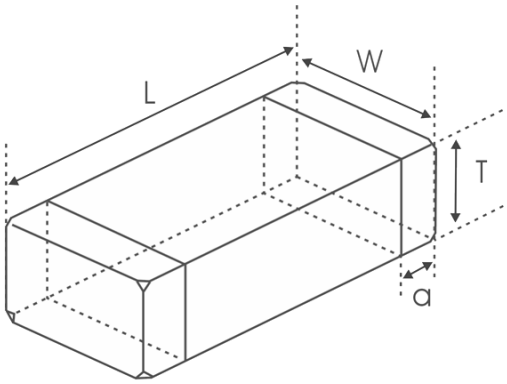


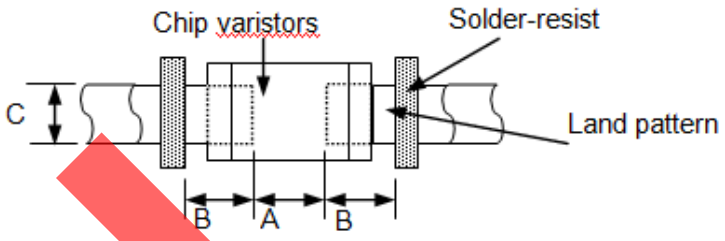
AMCV-1210H Series

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Mechanical Specifications



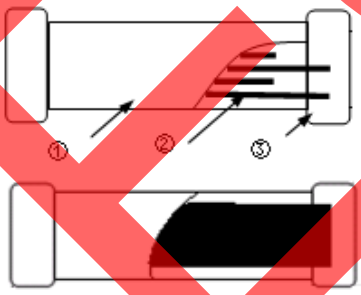


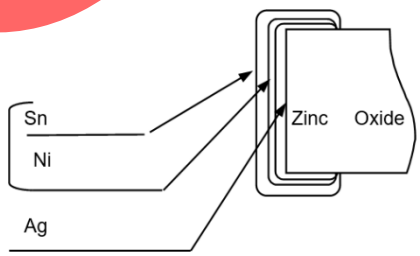
Series	L	W	T	a	A	B	C
AMCV-1210H	3.2±0.3	2.5±0.25	2.5 Max.	0.25~0.75	1.9~2.1	1.2~1.5	2.6~2.8

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)

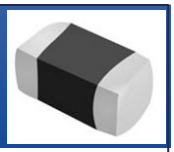
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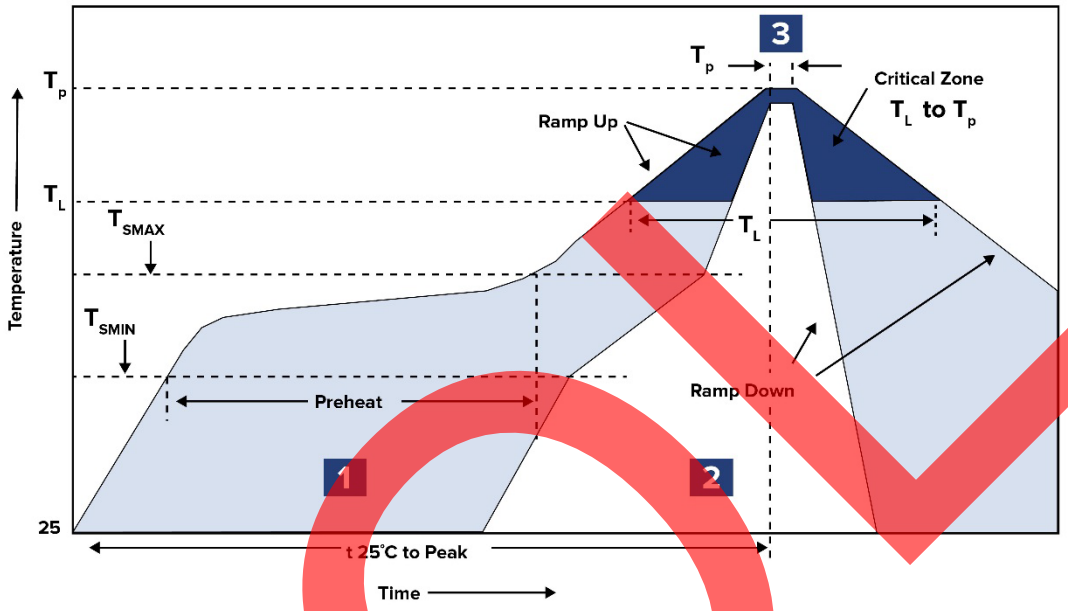


AMCV-1210H Series

Request Samples | Check Inventory

3.2 x 2.5 x 2.5mm
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.

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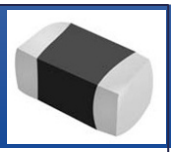
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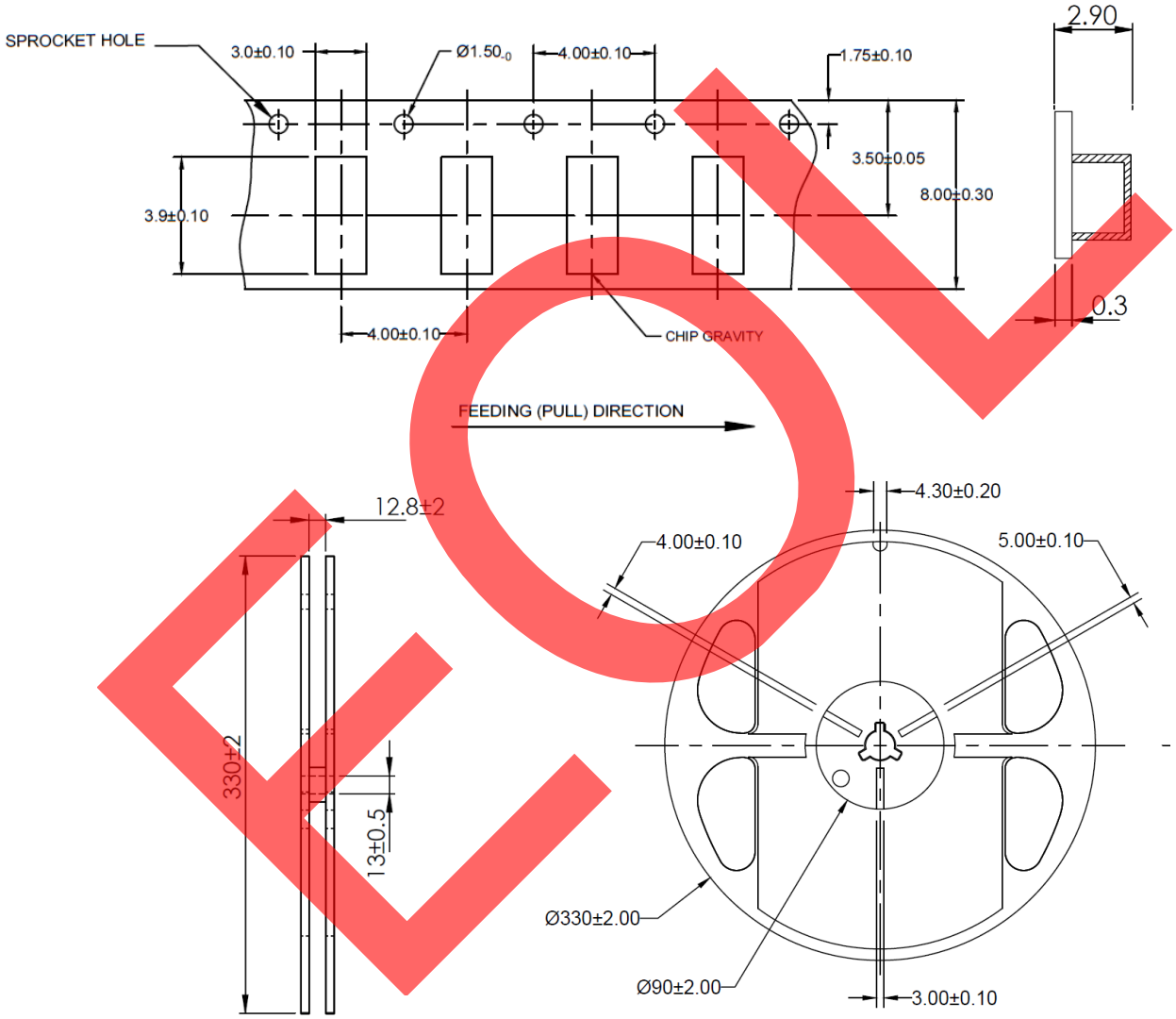
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RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel:

2,000 pcs/reel (Part Numbers: AMCV-1210H-(090/180/300/380))
1,500 pcs/reel (Part Numbers: All others)



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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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