

## High Surge Protection Devices

### SV Series (Super High Voltage, 1210 ~ 3220 Size)

#### Features:

- Bidirectional and symmetrical V/I characteristics
- Meet IEC61000-4-5 Standard
- Large withstanding surge voltage capability - 0.5~2KV (@1.2/50μs, 2Ω)
- Large withstanding surge current capability - 100~1000A (@8/20μs)
- Multilayer construction provides higher power dissipation

#### Applications:

- LED lighting
- Power board
- Base station
- AC power supply
- Industrial equipment and controllers

#### Product Identification:

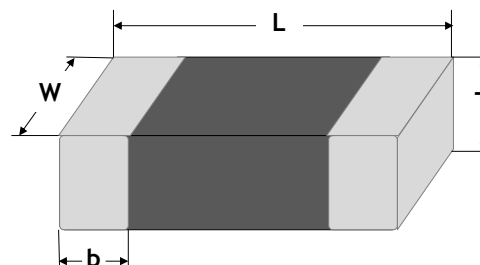
HSP 1210 SV 390V 0200

(1) (2) (3) (4) (5)

- (1) **Series Code:** High Surge Protection Series
- (2) **Size Code:** L x W (inch), the first two digits - L (length), the last two digits - W (width)
- (3) **Characteristic Code:** SV - Super High Voltage
- (4) **Breakdown Voltage Code:** 390V - 390V
- (5) **Surge Current Code:** 0200 - 200A

#### Shape and Dimensions:

Unit (mm)	1210	2220	3220
L	3.2 +0.6/-0.2	6.0 +0.7/-0.3	8.10 +0.70/-0.30
W	2.5 +0.4/-0.2	5.3 +0.5/-0.3	5.30+0.60/-0.30
T	2.60 Max.	3.60 Max.	3.70 Max.
b	0.5 ± 0.25	0.5 +0.35/-0.1	0.80+0.50/-0.10



#### Packaging:

Chip Size	Parts on 7 inch (178 mm) Reel
1210	1,500
2220	500
3220	500

#### Agency Approval:

- Recognized under the components program of UL and CSA
- File number: E475014

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#### Ordering Information:

Part Number	Size	Working Voltage		Breakdown Voltage <sup>1</sup> @1mA (V)	Clamping Voltage <sup>2</sup> (V)	Surge Voltage <sup>3</sup> @1.2/50μs, 2Ω (kV)	Surge Current <sup>3</sup> @8/20μs (A)		Safety Certification	
		V AC	V DC				1 time	15 times	UL <sup>5</sup>	CSA <sup>6</sup>
HSP1210SV390V0200	1210	250	320	390(±10% )	647	0.5	200	100	✓	
HSP1210SV470V0250	1210	300	385	470 (±10%)	775	0.5	250	150	✓	
HSP1210SV470V0500	1210	300	385	470 (±10%)	775	1.0	500	250	✓	✓
HSP2220SV390V0500	2220	250	320	390 (±10%)	647	1.0	500	250	✓	
HSP2220SV430V0500	2220	275	350	430 (±10%)	705	1.0	500	250	✓	
HSP2220SV470V0500	2220	300	385	470 (±10%)	775	1.0	500	250	✓	
HSP2220SV390V0800	2220	250	320	390 (±10%)	647	2.0	800	500	✓	
HSP2220SV470V0800	2220	300	385	470 (±10%)	775	2.0	800	500	✓	✓
HSP3220SV430V1000	3220	275	350	430 (±10%)	705	2.0	1000	500	✓	✓
HSP3220SV470V1000	3220	300	385	470 (±10%)	775	2.0	1000	500	✓	✓

<sup>1</sup> The breakdown voltage was measured at 1 mA current.

<sup>2</sup> The clamping voltage was measured at standard current 1210 (2.5A), 1812 (5A), 2220 (10A) and 3220 (10A).

<sup>3</sup> The surge voltage was tested at 1.2/50 μs waveform and 2Ω. The surge current was tested at 8/20 μs waveform.

<sup>4</sup> The capacitance value only for customer reference, it's not formal specification.

<sup>5</sup> The UL safety approval complies with standard UL1449 3<sup>rd</sup>.

<sup>6</sup> The CSA safety approval complies with standard CSA C22.2 No. 8.

<sup>4</sup> The capacitance value only for customer reference, it's not formal specification

## Disclaimer

*Specifications are subject to change without notice. AEM products are designed for specific applications and should not be used for any purpose (including, without limitation, automotive, aerospace, medical, life-saving applications, or any other application which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property) not expressly set forth in applicable AEM product documentation. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Warranties granted by AEM shall be deemed void for products used for any purpose not expressly set forth in applicable AEM product documentation. AEM shall not be liable for any claims or damages arising out of products used in applications not expressly intended by AEM as set forth in applicable AEM product documentation. The sale and use of AEM products is subject to AEM terms and conditions of sale. Please refer to AEM's website for updated catalog and terms and conditions of sale.*



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