

Surface Mount Multilayer Varistors

HV Series (High Voltage, 3220 Size)

Features:

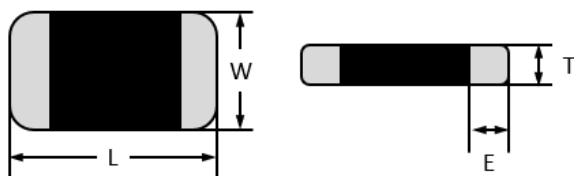
- Bidirectional and symmetrical V/I characteristics Low Capacitance
- Meet IEC61000-4-2 Standard
- Large withstanding surge current capability - 400~500A (@8/20μs)
- Multilayer construction provides higher power dissipation

Applications:

- Cell Phones
- PDAs & MP3
- Digital Cameras
- Notebooks

Shape and Dimensions:

Unit (mm)	V _{Break} : 240V ~ 270V	V _{Break} : 430V~470V
L	8.1 ± 0.3	8.1 ± 0.3
W	5.0 ± 0.3	5.0 ± 0.3
T	1.7 ± 0.3	2.2 ± 0.3
B	0.8 +0.5/-0.1	0.8 +0.5/-0.1



Operating Temperatures:

- -55°C to +85°C

Product Identification:

MLV 3220 HV 240V 0500

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

(1) **Series Code:** Surface Mount Multilayer Varistors

(2) **Size Code:** L x W (inch), the first two digits - L (length), the last two digits - W (width)

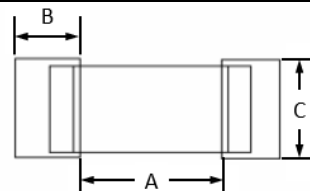
(3) **Characteristic Code:** HV - High Voltage

(4) **Breakdown Voltage Code:** 240V - 240V

(5) **Surge Current Code:** 0500 - 500A

Recommended Land Patterns:

Unit (mm)	3220
A	6.2~7.0
C	4.8~5.8
B	1.6~2.6



Packaging:

Chip Size	Parts on 7 inch (178 mm) Reel
3220	1,000

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Ordering Information:

Part Number	Size	Working Voltage		Breakdown Voltage ¹ @1mA (V)	Clamping Voltage ²		Surge Current ³ @8/20μs (A)	Energy (J)	Capacitance ⁴ @1kHz (pF)
		V AC	V DC		A	V			
MLV3220HV240V0500	3220	150	200	240 (±10%)	10	390	500	> 14.5	380
MLV3220HV270V0500		175	225	270 (±10%)		450	500	> 16.0	340
MLV3220HV390V0500		250	330	390 (±10%)		647	500	> 20.0	125
MLV3220HV430V0450		275	369	430 (±10%)		705	450	> 21.0	120
MLV3220HV470V0400		300	385	470 (±10%)		775	400	> 21.6	115

¹ The breakdown voltage was measured at 1 mA current.

² The clamping voltage was measured at standard current 3220 (10A).

³ The surge current was tested at 8/20 μs waveform.

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

Reliability Tests:

Item	Condition	Requirement
High Temperature Storage	* Temperature : 125±2°C * Time : 1000±2 hours * Test after placing in ambient temperature for 24 hours	* Breakdown voltage change : within ±10% * No mechanical damage
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High Temperature Storage	* Temperature : 125±2°C * Time : 1000±2 hours * Test after placing in ambient temperature for 24 hours	* Breakdown voltage change : within ±10% * No mechanical damage
High Temperature Load	* Temperature : 85±2°C * Rated working voltage applied * Time : 1000±2 hours * Test after placing in ambient temperature for 24 hours	* Breakdown voltage change : within ±10% * No mechanical damage
High Temperature Load	* Temperature : 85±2°C * Rated working voltage applied * Time : 1000±2 hours * Test after placing in ambient temperature for 24 hours	* Breakdown voltage change : within ±10% * No mechanical damage

Disclaimer

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