



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SMD 1210 Multilayer Varistor



FEATURES

- Surface mount multilayer surge suppressor
- Inherent bidirectional clamping
- Excellent energy/volume ratio
- Suitable for reflow soldering
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE

APPLICATIONS

Over-voltage and transient voltage protection:

- Data lines and I/O port protection
- Protection against ESD transients
- On-board protection of IC's and transistors
- Modem protection
- LCD protection

DESCRIPTION

Size 1210 (M3225) multilayer chip varistor with NiSn terminations.

PACKAGING

Available in 8 mm embossed carrier tape, component pitch 4 mm on 180 mm reels containing 2000 pieces.

QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Maximum continuous voltage		
DC	5.6 to 45.0	V
AC	4.0 to 35.0	V
Maximum clamping voltage at 2.5 A	22.0 to 95.0	V
Capacitance range (at 1 kHz)	650 to 5000	pF
Maximum energy (10/1000 μ s)	0.4 to 2.2	J
Maximum peak current (8/20 μ s)	250 to 400	A
Operating temperature range	-55 to 85	$^{\circ}$ C
Weight	\pm 0.030	g

ELECTRICAL DATA AND ORDERING INFORMATION

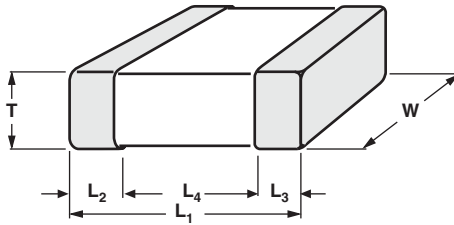
WORKING VOLTAGE		BREAKDOWN VOLTAGE	CLAMPING VOLTAGE	MAX. PEAK CURRENT	MAXIMUM ENERGY	CAPACITANCE	PART NUMBER
V_{RMS}	V_{DC}	V_b	V_c	I_p	E_t	C	SAP
V	V	V	V	A	J	pF	MLV1210E3
	< 50 μ A	1 mA	2.5 A, 8/20 μ s	8/20 μ s	10/1000 μ s	1 kHz	
4.0	5.6	7.0 to 10.0	22.0	250	0.4	5000	0403T
14.0	18.0	21.6 to 26.0	48.0	400	1.5	2000	1403T
20.0	26.0	31.0 to 38.0	62.0	400	1.9	1500	2003T
25.0	30.0	37.0 to 46.0	77.0	400	1.9	1200	2503T
35.0	45.0	50.4 to 61.6	95.0	250	2.2	950	3503T

Notes

- Sinusoidal voltage assumed as normal operating condition.
If a non-sinusoidal voltage is present, the crest voltage x 0.707 should be used for type selection.
- Breakdown voltage at a current of 1 mA, measured according to 4.5 of IEC 61051-1.
- Parts are not recommended for automotive applications.

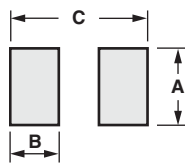


DIIMENSIONS in millimeters



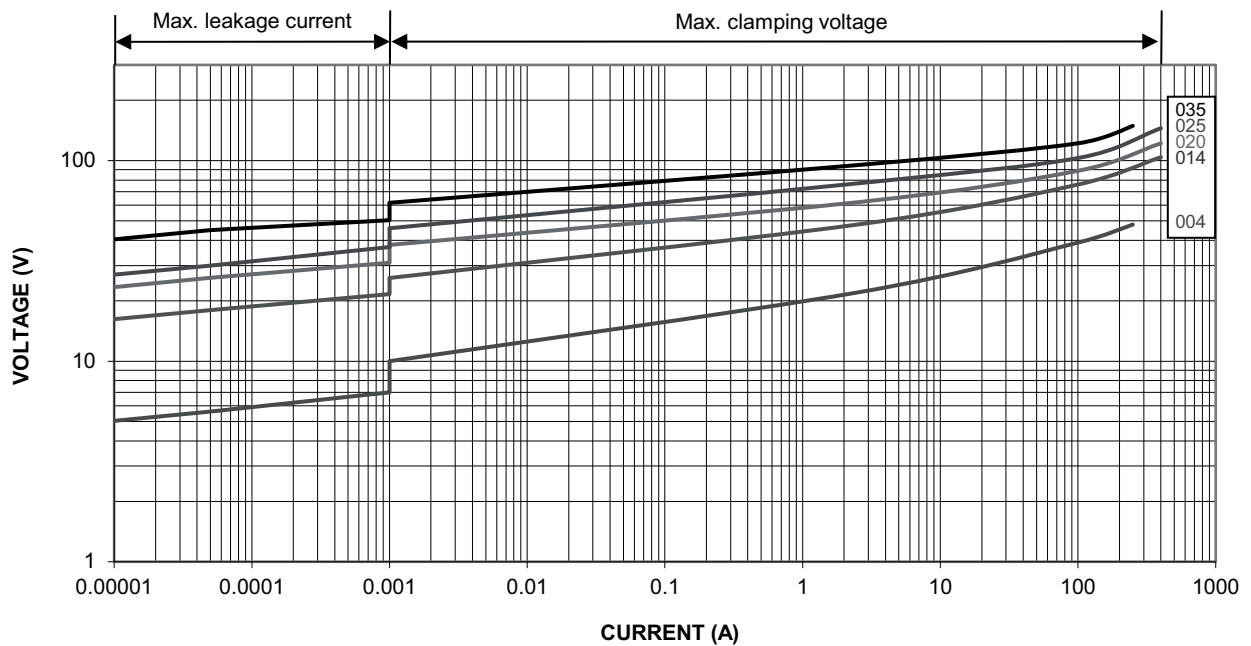
L ₁	W	T	L ₂ and L ₃
3.2 ± 0.2	2.5 ± 0.25	1.8 max.	0.71 max.

RECOMMENDED FOOTPRINT in millimeters



A	B	C
2.7	1.2	3.9

V/I CHARACTERISTICS





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