

### ◆ Feature

- 1.SMD type zinc oxide based ceramic chip
- 2.Lead free plating termination provided good solderability characteristic
- 3.Insulator overcoat keeps excellent low and stable leakage current
- 4.Quick response time (<1ns)
- 5.Low clamping voltage
- 6.High transient current capability
- 7.Meet IEC 61000-4-2, 61000-4-4, and 61000-4-5 standard



### ◆ Application

Applications for Mother Board, Notebook, Cellular Phone, PDA, handheld device, DSC, DV, Scanner, and Set-Top Box...etc.

### ◆ How to Order

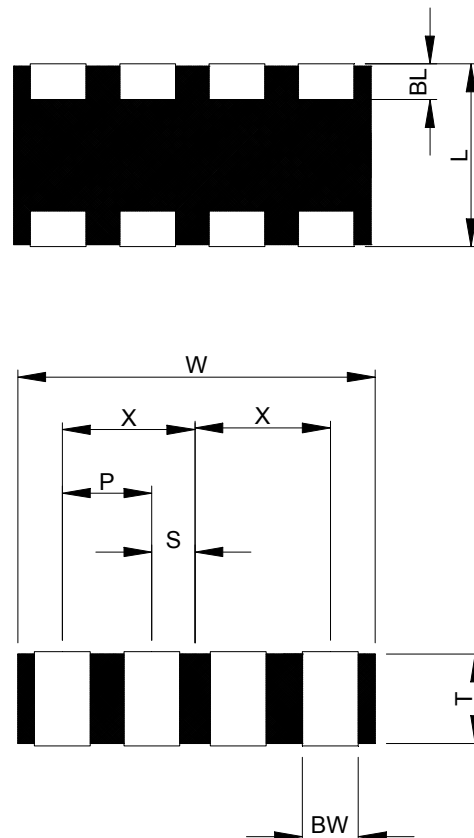
MLV   A   0805   M   04   -   330   □  
 (1)   (2)   (3)   (4)   (5)   -   (6)   (7)

- (1) Series Type: MLV — Multilayer Varistor
- (2) Model Code: A — Array
- (3) Chip Size(EIA): 0805
- (4) Varistor Voltage Tolerance:  
M = ±20% ; L = ±15% ; K = ±10%
- (5)  $V_{RMS}$ : AC Working Voltage  $V_{RMS}$
- (6) Capacitance: Value — XX x  $10^N$  → XXN  
ex.33pF=33x $10^0$  → 330
- (7) Suffix for Special Requirement

### ◆ Dimension

Unit: mm

Size EIA (EIAJ)	0805 (2012)
L	1.25±0.20
W	2.00±0.20
T	0.90 MAX
BW	0.20±0.1
BL	0.20±0.1
P	0.50 REF
X	0.75±0.10
S	0.25±0.10



## ◆ Specification

Symbol	Working Voltage		Varistor Voltage		Clamping Voltage	Capacitance	Peak Current	Transient Energy
	$V_{RMS}$	$V_{DC}$	$V_V$	$\Delta V_V$	$V_C$	$C_p$	$i_{max}$	$W_{max}$
	Volts	Volts (Max.)	Volts	%	Volts (Max.)	pF(typ.)	Amps (Max.)	Joules (Max.)
<b>MLVA 0805</b>								
MLVA0805M04-100	4	5.5	12	±20	34	10	1	0.05
MLVA0805M04-330	4	5.5	12	±20	28	33	10	0.01
MLVA0805M04-500	4	5.5	12	±20	27	50	10	0.01
MLVA0805K14-150	14	18	28	±10	58	15	5	0.01

$V_{RMS}$  - Maximum AC operating voltage the varistor can maintain and not exceed 10  $\mu$ A leakage current.

$V_{DC}$  - Maximum DC operating voltage the varistor can maintain and not exceed 10  $\mu$ A leakage current.

$V_V$  - Voltage across the device measured at 1mA DC current.  
Equivalent to  $V_B$ , "break down voltage."

$V_C$  - Maximum peak current across the varistor with 8/20us waveform and 1A pulse current.

$C_p$  - Device capacitance measured with zero volt bias 1Vrms at 1MHz.

$i_{max}$  - Maximum peak current which may be applied with 8/20 $\mu$ s waveform without device failure.

$W_{max}$  - Maximum energy which may be dissipated with the 10/1000 $\mu$ s waveform without device failure.

## ◆ General Technical Data

Operating Temperature	-40 ~ +85°C
Storage Temperature (on board)	-40 ~ +85°C
Response Time	<1 ns
Solderability	245±5°C, 3±1sec.
Solder Leach Resistance	260±5°C, 10±1 sec.

## ◆ Environmental Performance

Item	Specifications	Test Condition
Bias Humidity	$\Delta V_V / V_V \leq \pm 10 \%$	90%RH, 40°C, Working Voltage, 1000 hrs
Thermal Shock		-40°C to 85°C, 30 min. cycle, 5 cycles
Full Load Voltage		Working Voltage, 85°C, 1000 hrs

## ◆ Package

Size EIA (EIAJ)	0805 (2012)
Standard Packing Quantity (pcs / reel)	4,000