

Features

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



Applications

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**

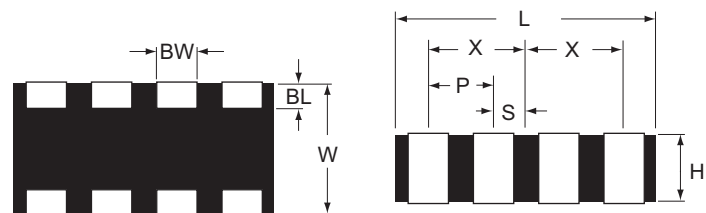
1 2 3 4 5 6

- 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— $XX \times 10^N \rightarrow XXN$
ex.33pF= $33 \times 10^0 \rightarrow 330$

Dimensions

Unit: mm

Size EIA (EIAJ)	0805 (2012)
W	1.25±0.20
L	2.00±0.20
H	0.90 max.
BW	0.20±0.1
BL	0.20±0.1
P	0.5 ref.
X	0.75±0.10
S	0.250±0.10



Specifications

Symbol	Working Voltage		Varistor Voltage		Clamping Voltage	Capacitance	Peak Current	Transient Energy
	V_{RMS}	V_{DC}	V_V	ΔV_V	V_C	C_p	I_{max}	W_{max}
Units	Volts	Volts (Max.)	Volts	%	Volts (Max.)	pF (typ.)	Amps (Max.)	Joules (Max.)
Test Condition	<10mA		1mA DC		1A 8/20 μ S	1MHz	8/20 μ S	10/1000 μ S
MLVA 0805								
MLVA0805M04-100	4	5.5	12	± 20	34	10	5	0.01
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 μ A leakage current

V_{DC} —Maximum DC operating voltage the varistor can maintain and not exceed 10 μ 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 8/20 μ s waveform and 1A pulse current.

C_p —Device capacitance measured with zero volt bias 1Vrms.

I_{max} —Maximum peak current which may be applied with 8/20 μ s waveform without device failure

W_{max} —Maximum energy which may be dissipated with the 10/1000 μ s waveform without device failure

General Technical Data

Operating Temperature	-40... +85°C
Storage Condition	-40... +85°C
Response Time	<1 ns
Solderability	245 \pm 5°C, 3 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
High Temperature Loading		Working Voltage, 85°C, 1000 hrs
Solder Leach Resistance	(1) $\Delta V_V / V_V \leq \pm 10 \%$ (2) $I_L \leq 10\mu A$ at Working Voltage (3) Solder Wetting Area $\geq 95\%$	260°C, 10 sec.

Package

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