

MULTILAYER VARISTORS

Transient Voltage Surge Suppressors

Applications

- Suppression of circuit board level Surge, ESD, EFT and other transient events
- ESD protection for components sensitive to IEC 61000-4-2, MIL-STD-883C Method 3015.7, and other industry specifications
- Provides on-board transient voltage protection for ICs and Transistors
- Used to help achieve Electromagnetic Compliance of end products
- Replace larger surface mount TVS zeners diodes in many applications

Features

- Thinlayer and high precise technique
- Able to withstand high surge current
- Bi-directional clamping characteristic
- Standard / Low capacitance chip TVS types available
- Available with Nickel / Tin end terminations

Specification

- Operating Temperature ● Solderability
-55 to +125°C 260°C 2sec (IEC 60068-2-58)
- Soldering Heat Resistance
260°C 5sec (IEC 60068-2-58)
- Response time < 0.5ns
- Temperature coefficient (αV) of clamping Voltage (V_c)
@ specified test current <0.01% / °C
- Leadless 0402, 0603, 0805, 1206, 1210, 1812, 2220 chip sizes
- Operating voltage range (DC) available from 3.3V to 120V
- Withstand ESD durability test severity of IEC 61000-4-2 level 4

PRODUCT NUMBER SYSTEM

JL 02 ML 12 101 P T □
 1 2 3 4 5 6 7 8

1=Series Code

JL : Low Capacitance Series

2=Size code

02 : EIA 0402

3=Type Code

ML : Multilayer

4=Rated Voltage Code

12 : 2~12 VM(DC)

5=Capacitance

101 : $10 \times 10^1 = 100$ pF Typical

6=End Termination

P : Nickle/Tin plated

7=Packing Code

T : Tape & Reel

B : Bulk

8=Special Code

DEVICE RATINGS AND SPECIFICATIONS

PART NUMBER	Maximum Ratings (125°C)		Performance Specifications (25°C)				
	Maximum Working Voltage	Max. Non-Repetitive Surge Energy (10/1000µs)	Maximum Clamping Voltage at 1A (8/20µs)	Nominal Voltage at 1 mA(DC) Test Current		Typical Capacitance @1 MHz	Typical Inductance (from Impedance Analysis)
	V _{M(DC)}	WTM	V _c	V _{N(DC)} min.	V _{N(DC)} max.	C	L
	(V)	(J)	(V)	(V)	(V)	(pF)	(nH)
JL 02 ML12 101 PT	2 ~ 12	0.05	30	14.0	18.5	100.0	<1.0
JL 02 ML14 101 PT	2 ~ 14	0.05	35	16.0	21.0	100.0	<1.0
JL 02 ML14 500 PT	2 ~ 14	0.03	35	16.0	21.0	50.0	<1.0
JL 02 ML18 101 PT	2 ~ 18	0.05	50	22.0	28.0	100.0	<1.0
JL 02 ML18 400 PT	2 ~ 18	0.03	50	22.0	28.0	40.0	<1.0
JL 02 ML18 300 PT	2 ~ 18	0.03	50	22.0	28.0	30.0	<1.0
JL 02 ML18 200 PT	2 ~ 18	0.005	55	22.0	32.0	20.0	<1.0
JL 02 ML18 100 PT	2 ~ 18	0.005	55	22.0	32.0	10.0	<1.0
JL 02 ML18 050 PT	2 ~ 18	0.005	110	45.0	60.0	5.0	<1.0
JL 02 ML18 030 PT	2 ~ 18	0.005	270	135.0	165.0	3.0	<1.0

Notes :

1、Maximum ESD clamp voltage tested with IEC 61000-4-2 Human Body Model discharge

test current and direct discharge to device terminal (IEC preferred test method) .

2、Typical leakage current < 5µA .

3、Capacitance may be customized , please contact factory for availability .