

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

JV 20 ML 18 113 P T

1 2 3 4 5 6 7 8

1=Series Code

JV : High Power Series

2=Size code

20 : EIA 2220

3=Type Code

ML : Multilayer

4=Rated Voltage Code

18 : 18 VM (DC)

5=Capacitance

113 : $11 \times 10^3 = 11000$ 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) | | | | | Specifications(25°C) | | |
|---------------|------------------------------------|--------------------|---|---|--|---|-------------------------|----------------------------|
| | Maximum Continuous Working Voltage | | Maximum Non-Repetitive Surge Current (8/20µs) | Maximum Non-Repetitive Surge Energy (10/1000µs) | Maximum Clamping Voltage at Specified Current (8/20µs) | Nominal Voltage at 1 mA (DC) Test Current | | Typical Capacitance @1 MHz |
| | V _{M(DC)} | V _{M(AC)} | I _{TM} | W _{TM} | V _c | V _{N(DC) min.} | V _{N(DC) max.} | C |
| | (V) | (V) | (A) | (J) | (V) | (V) | (V) | (pF) |
| JV20ML18113PT | 18 | 14 | 600 | 3.6 | 40 at 10 A | 20.0 | 30.0 | 11000 |
| JV20ML38472PT | 38 | 30 | 1200 | 12.0 | 77 at 10 A | 42.3 | 51.7 | 4700 |
| JV20ML45402PT | 45 | 35 | 1000 | 7.5 | 90 at 10 A | 50.0 | 61.0 | 4000 |
| JV20ML68222PT | 68 | 50 | 800 | 5.5 | 135 at 10 A | 74.0 | 90.0 | 2200 |

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 .