



18VDC Surface Mount Multilayer Chip Varistors SV0402E180G2B SMD Lead Free Type

Our Product Introduction

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Basic Information

- Place of Origin: Shenzhen Guangdong China
- Brand Name: SOCAY
- Certification: REACH RoHS ISO
- Model Number: SV0402E180G2B
- Minimum Order Quantity: 10000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Name: Multilayer Chip Varistor
- Package: SMD0402
- Vdc (Max.): 18V
- Vv (Min.): 46V
- Vv (Max.): 60V
- Vc (Max.): 110V
- Imax: 1A
- Cp (Typ.): 1pF
- Highlight: **18VDC Multilayer Chip Varistor,
Multilayer Chip Varistor Lead Free,
18VDC Surface Mount Varistors**



Product Description

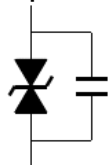
18VDC Surface Mount Multilayer Varistor SV0402E180G2B SMD Quick Response Time (<1ns)

Multilayer Varistor DATASHEET: [SV0402E180G2B_v89.1.pdf](#)

Description:

The Multilayer Varistor SV0402E180G2B is based on Multilayer fabrication technology. These components are designed to suppress a variety of transient events, including those specified in IEC 61000-4-2 or other standards used for Electromagnetic Compliance (EMC). The SV0402E9R0G0B is typically applied to protect integrated circuits and other components at the circuit board level. It can operate over a wider temperature range than zener diodes.

Equivalent Circuits:



Electrical Characteristics (25±5):

Symbol	Minimum	Typical	Maximum	Units
VDC	—	—	9	V
VV	11	—	17	V
VC	—	—	35	V
CP	—	5	—	pF

VDC – Maximum DC operating voltage the varistor can maintain and not exceed 10μA leakage current.

VV – Voltage across the device measure at 1mA DC current.

Equivalent to VB “breakdown voltage”

VC – Maximum peak current across the varistor with 8/20μs waveform and 1A pulse current.

CP – Device capacitance measured with zero volt bias 1Vrms at 1MHz. The pF is ±30%.

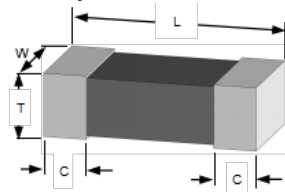
Multilayer Varistor Features:

- u Lead Free type
- u SMD type zinc oxide based ceramic chip
- u Insulator over coat keeps excellent low and stable leakage current
- u Plating termination provided good solderability characteristic
- u Quick response time (<1ns)
- u Low clamping voltage
- u Meet IEC61000-4-2 standard
- u Low capacitance can meet high speed single transient voltage protection

Multilayer Varistor Applications:

- u Low capacitance product applications for high-speed signal lines such as HDMI, DVI, USB, IEEE 1394 Port etc.
- u Normal capacitance product applications for I/O Port (RS232, USB, PS2, VGA, Audio) on Mother Board and Notebook, Set-Top Box, MP3 Players, DVD Players, and Docking System etc.

Multilayer Varistor Construction & Dimensions:



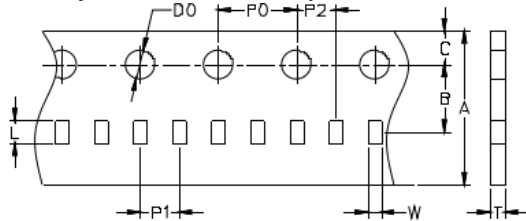
Size EIA (EIAJ)	0402 (1005)	
Symbol	Inches	Millimeters
L	0.038±0.005	0.96±0.12
W	0.019±0.003	0.48±0.07
T	0.020±0.004	0.50±0.10
C	0.010±0.006	0.25±0.15

General Technical Data:

Operating Temperature		-40 ~ +85°C
Storage Temperature		-40 ~ +85°C
Response Time		<1 ns
Solderability		245±5°C, 3±1sec
Solder leach resistance		260±5°C, 10±1sec
Taping Package Storage Condition	Storage Temperature	5 ~ 40°C
	Relative Humidity	To 65%
	Storage Time	12 Months max

Multilayer Varistor 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	$\Delta V_V / V_V \leq \pm 10 \%$	-40°C to 85°C, 30 min. cycle, 5 cycles
Full Load Voltage	$\Delta V_V / V_V \leq \pm 10 \%$	Working Voltage, 85°C, 1000 hrs

Multilayer Varistor Carrier Tape Dimension:

Size EIA (EIAJ)	0402 (1005)	
Symbol	Inches	Millimeters
A	0.315±0.012	8.00±0.30
B	0.138±0.002	3.50±0.05
C	0.069±0.002	1.75±0.05
D0	0.061±0.002	1.55±0.05
P0	0.157±0.004	4.00±0.10
P1	0.079±0.002	2.00±0.05
P2	0.079±0.002	2.00±0.05
W	0.023±0.001	0.59±0.03
L	0.044±0.001	1.12±0.03
T	0.024±0.001	0.60±0.03

Quantity of Products in the Taping Package:

SIZE EIA (EIAJ)	0402 (1005)
Standard Packing Quantity (PCS / reel)	10,000



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