Bidirectional TVS Diodes

SDxx

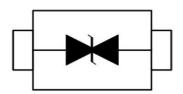
#### DESCRIPTION

The SDxxC Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power, data and transmission lines from overvoltage caused by ESD(electrostatic discharge), CDE (Cable Discharge Events),and EFT (electrical fast transients).

#### **APPLICATIONS**

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports.
- Peripherals



#### FEATURES

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ηs)
- 350 Watts Peak Pulse Power per (tp=8/20µs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages : 3V,5V,8V,12V,15V,18V,20V,24V,36V
- Low leakage current

#### MACHANICAL DATA

- SOD-323 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranted:260°C/10s
- Reel size: 7 inch
- MSL 1

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# ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V <sub>ESD</sub>	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	kV
P <sub>PP</sub>	Peak Pulse Power (8/20µs)	350	W
T <sub>OPT</sub>	Operating Temperature	-55/+150	°C
T <sub>STG</sub>	Storage Temperature	-55/+150	°C
TL	Lead Soldering Temperature	260 (10 sec.)	°C

## **ELECTRICAL CHARACTERISTICS (Tamb=25**

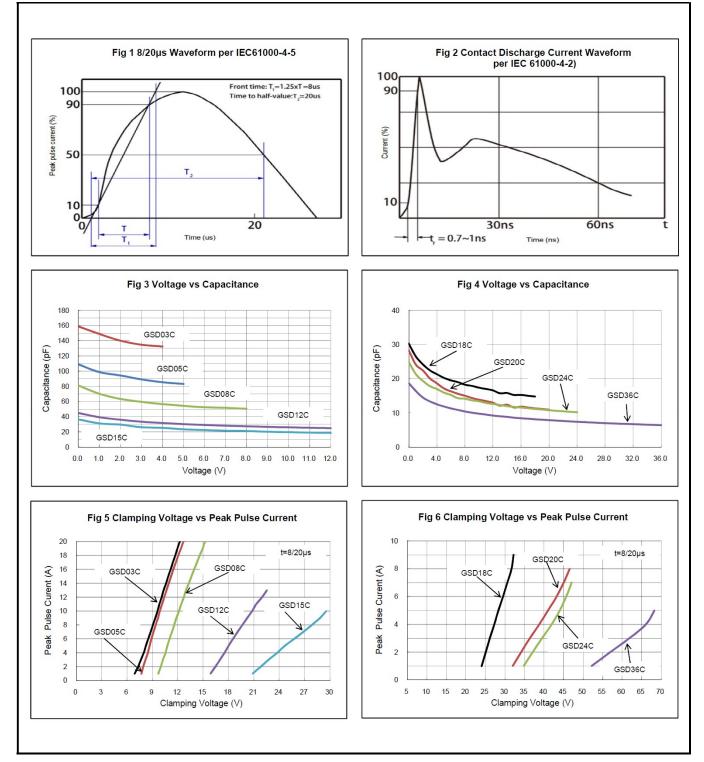
PART NUMBER	DEVICE MARKING	V <sub>RWM</sub> (V) (max.)	V <sub>B</sub> (V) (min.)	Ι <sub>τ</sub> (mA)	V <sub>C</sub> @1A (V) (max.)	V <sub>c</sub> (V) (max.) (@A)	Ι <sub>R</sub> (μΑ) (max.)	C <sub>T</sub> (pF) (max.)
SD03C	2A 3	3.3 4	l.0	1 7	'.5 16		0 4	50
SD05C	2B 5	5.0 6	6.0 <sup>-</sup>	1 9	).8 18	.0 17 1	0 20	00
SD08C	2C 8	8.0 8	9.5 ź	1	3.4 24	.0 15 2	2 12	20
SD12C	2D 1	2.0 1	3.3 ´	1	9.0 32	.0 11	7	5
SD15C	2J 1	5.0 1	6.7 1	24	4.0 38	.0 10 ·	6	8
SD18C	2K 1	8.0 2	0.0	1 2	9.0 45	5.0 9	1 5	7
SD20C	2L 2	0.0 2	2.3 ·	1 3	5.0 50	0.0 8	1 5	2
SD24C	2H 2	4.0 2	6.7 <sup>^</sup>	4	3.0 52	.0 7	5	0
SD36C	2N 3	6.0 4	0.0	16	0.0 75	5.0 4.5	1 3	5

EVVOSEMI<sup>®</sup> THINK CHANGE DO

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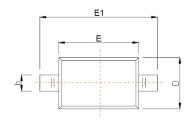
**SDxxC** 

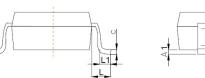
### ELECTRICAL CHARACTERISTICS CURVE



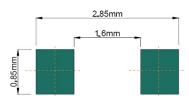
SDxxC Bidirectional TVS Diodes

# SOD-323 PACKAGE OUTLINE DIMENSIONS





Cumple al	Dimensions In Millimeters				
Symbol –	Min	Max			
А		1.00			
A1	0.000	0.100			
A2	0.800	0.900			
b	0.250	0.350			
с	0.080	0.150			
D	1.200	1.400			
E	1.600	1.800			
E1	2.500	2.700			
е	1.800	2.040			
L	0.475 REF				
L1	0.250	0.400			
θ	0°	8°			



A2

**Recommended Pad outline** 

# Ordering information

Order code	Package	Base qty	Delivery mode
SDxxC	SOD-323	3000	Tape and reel