

RoHS Compliant Product
A suffix of "-C" specifies halogen and lead-free

DESCRIPTION

The SD03-C 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 device 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).

FEATURES

- Peak Power Dissipation: 350W (8/20µs)
- Working Voltages: 3.3V
- Protects One I/O Line (Uni-Directional)
- Low Clamping Voltage
- Low Leakage Current

MARKING

03W

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch

ORDER INFORMATION

Part Number	Type
SD03-C	Lead (Pb)-free and Halogen-free

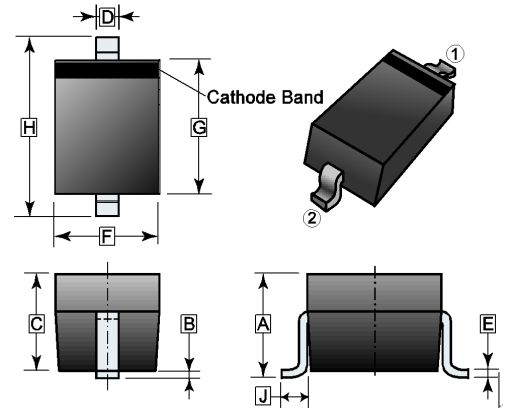
ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
IEC 61000-4-2 ESD Voltage ¹	Air Model	±15	kV
	Contact Model	±8	
Peak Pulse Power ² @tp=8/20µs	P _{PP}	350	W
Lead Soldering Temperature @10 Second Duration	T _L	260	°C
Junction and Storage Temperature Range	T _J , T _{STG}	150, -55~150	

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Stand-off Voltage	V _{RWM}	-	-	3.3	V	
Breakdown Voltage	V _(BR)	4	-	-	V	I _T =1mA
Reverse Leakage Current	I _R	-	-	40	µA	V _{RWM} =3.3V
Clamping Voltage	V _C	-	-	6.5	V	I _{PP} =1A
		-	-	14		I _{PP} =20A
Junction Capacitance	C _J	-	450	-	pF	V _R =0V, f=1MHz

SOD-323

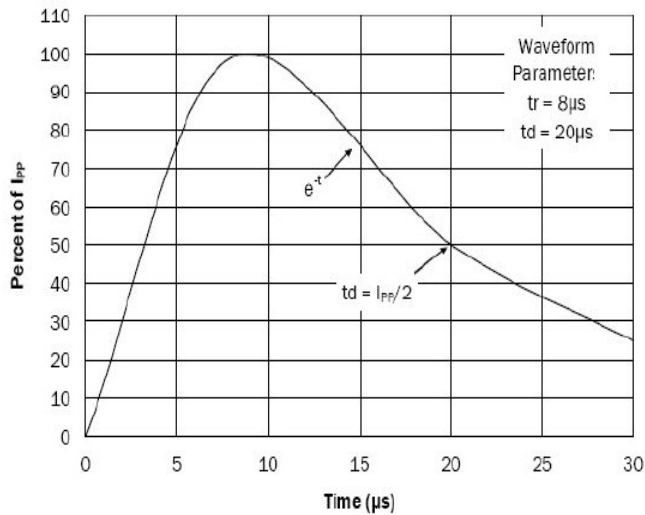


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05	REF.	F	1.10	1.50
B	0.07	REF.	G	1.50	1.95
C	0.80	1.10	H	2.30	2.80
D	0.25	0.40	J	0.475 REF.	
E	0.05	0.25			

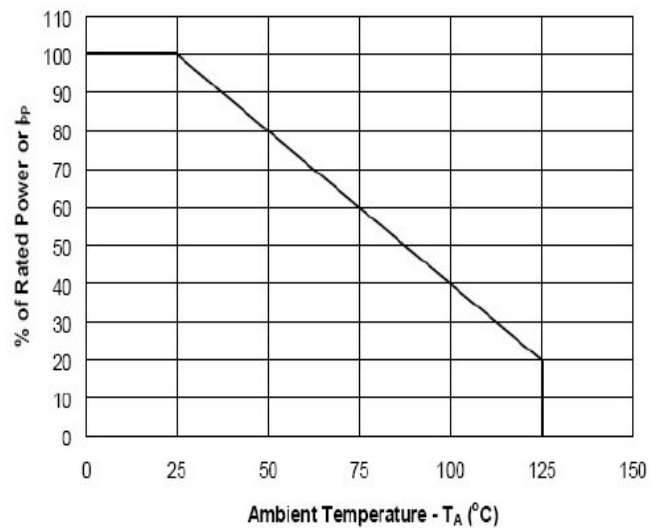


TYPICAL CHARACTERISTICS

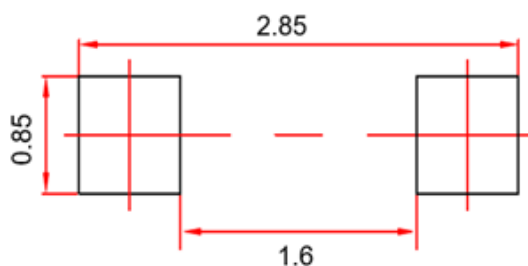
Pulse Waveform



Power Derating Curve



Mounting Pad Layout



*Dimensions in millimeters