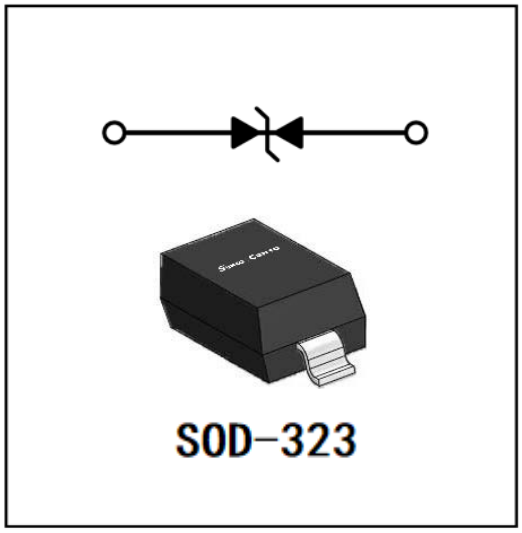
ESD Protection Diode



Features

- For sensitive ESD protection
- Low leakage
- Bi-directional ESD protection of one line
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Mechanical Data

- **Package**: SOD323
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** No marking on bi-directional types
- **Marking:** B5

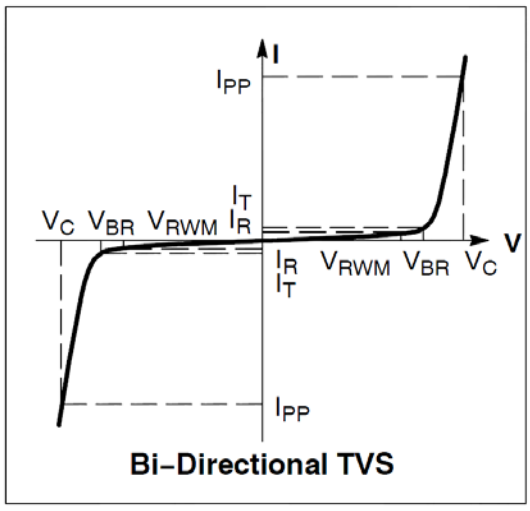
■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Operating Junction & Storage Temperature	T_J&T_{STG}	-45 to +150	℃
IEC61000-4-2(ESD)Air	V_{ESD} (1)	±25	KV
IEC61000-4-2(ESD)Contact		±25	KV
Peak Pulse Current, t_P=8/20μs	I_{PP} (2)	8	A
Peak Power Dissipation, t_P=8/20μs	P_{PK} (2)	120	W

(1).Device stressed with ten non-repetitive ESD pulses.
(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5.

■Electrical Parameter

PARAMETER	SYMBOL
Clamping Voltage@ I_{PP}	V_C
Breakdown Voltage@ I_T	V_{BR}
Peak Pulse Current	I_{PP}
Test Current	I_T
Reverse Leakage Current@ V_{RWM}	I_R
Reverse Standoff Voltage	V_{RWM}
Peak Power Dissipation	P_{PK}
Junction Capacitance @ V_R=0 and f=1MHz	Cj



■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V_{RWM} (1)	V				5.0
Reverse Leakage Current	I_R	μA	VRWM=5.0V			1
Breakdown Voltage	$V_{(BR)}$	V	I_T=1mA	5.8		8.8
Clamping Voltage	V_C (2)	V	I_{PP}=8A , t_P=8/20μs			15
Junction Capacitance	C_J	pF	V_R=0V,f=1MHz		30	

(1).Other voltages available upon request.
(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESD5V0D3B	F2	Approximate 0.004	3000	30000	120000	7” reel

■ Characteristics (Typical)

Fig. 1 - 8 X 20μs Pulse Waveform

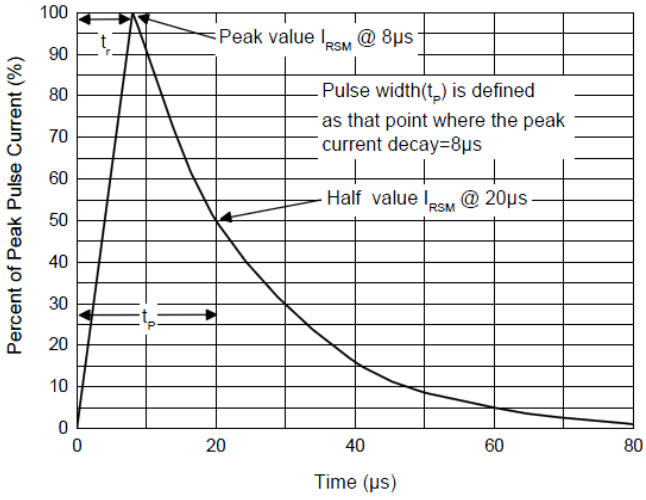


Fig. 2 - Pulse Derating Curve

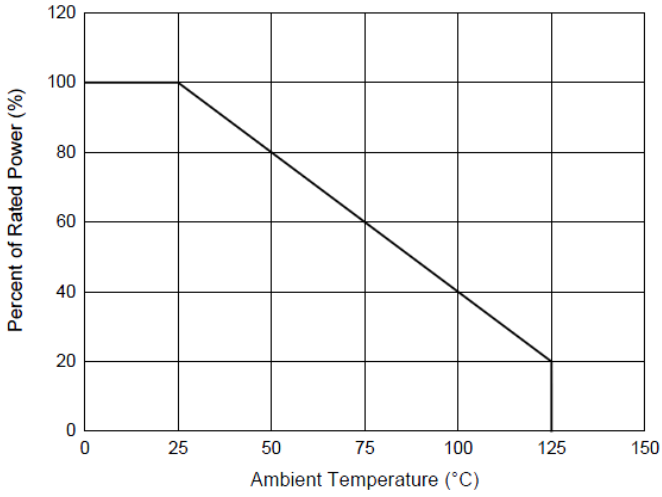


Fig. 3 - Capacitance Characteristics

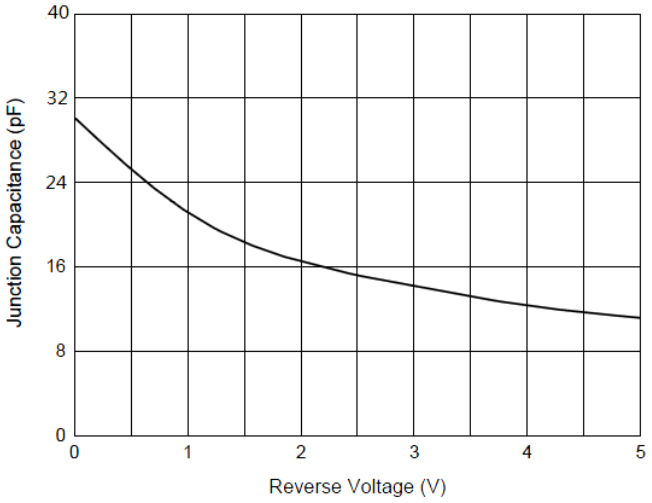
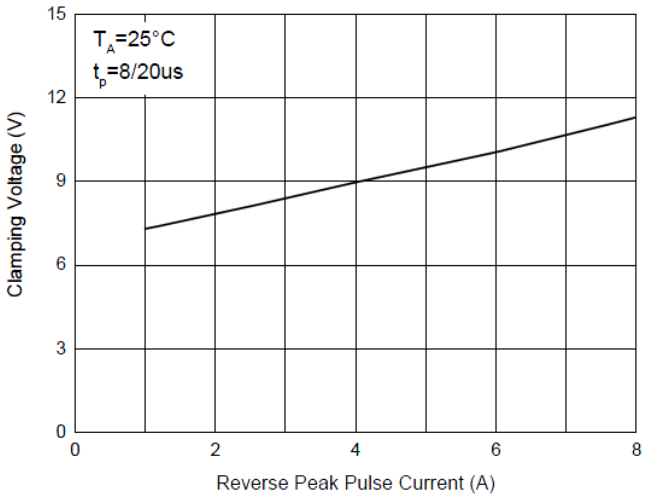
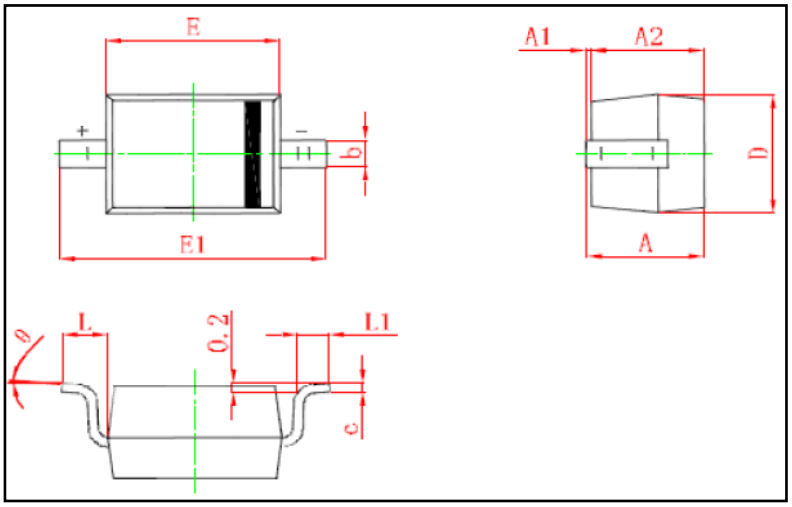


Fig. 4 - Clamping Voltage Characteristics

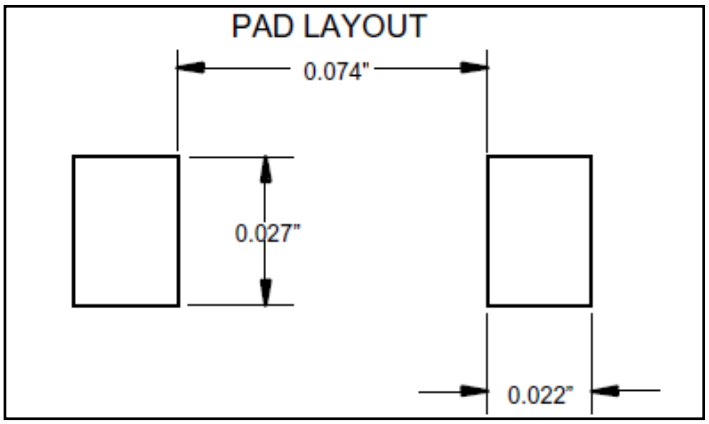


■ Outline Dimensions



Symbol	Min. (mm)	Max. (mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.400
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

■ Soldering Footprint



Unit：inches

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