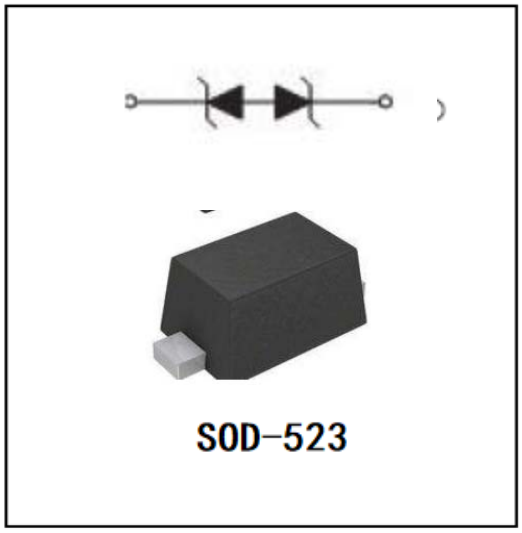
ESD Protection Diode



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**: SOD523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** B5

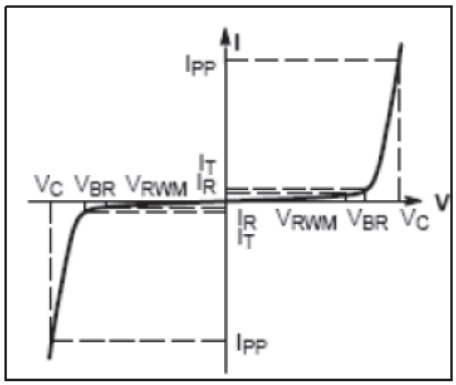
■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Operating Junction & Storage Temperature	T_J&T_{STG}	-45 to +125	℃
IEC61000-4-2(ESD)Air	VESD (1)	±15	KV
IEC61000-4-2(ESD)Contact		±8	KV
Peak Pulse Current	I_{PP} (2)	8	A

(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}
Max. Capacitance @ V_R=0 and f=1MHz	C



V-I characteristics for a Bi-directional TVS

■Electrical Characteristics（Ta=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	uA	VRWM=5.0V			1
Breakdown Voltage	$V_{(BR)}$	V	I_T=1mA	5.8		8.7
Clamping Voltage	V_C (2)	V	I_{PP}=8A			16
Junction Capacitance	C_J	pF	V_R=0V,f=1MHz		35	45

(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
ESD5V0D5B	F2	Approximate 0.002	8000	80000	320000	7” reel

■ Characteristics (Typical)

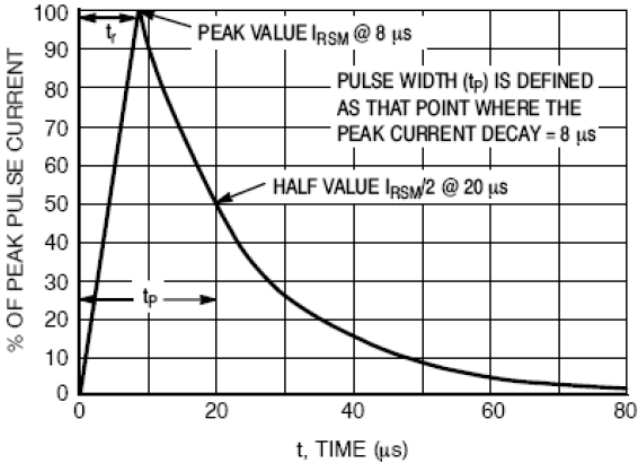


Figure 1. 8 x 20 μs Pulse Waveform

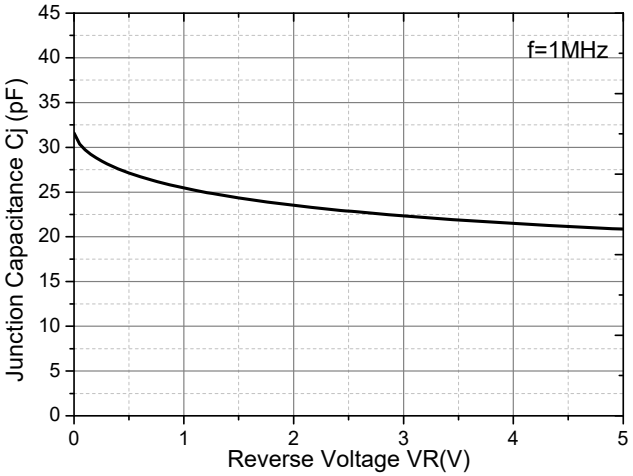
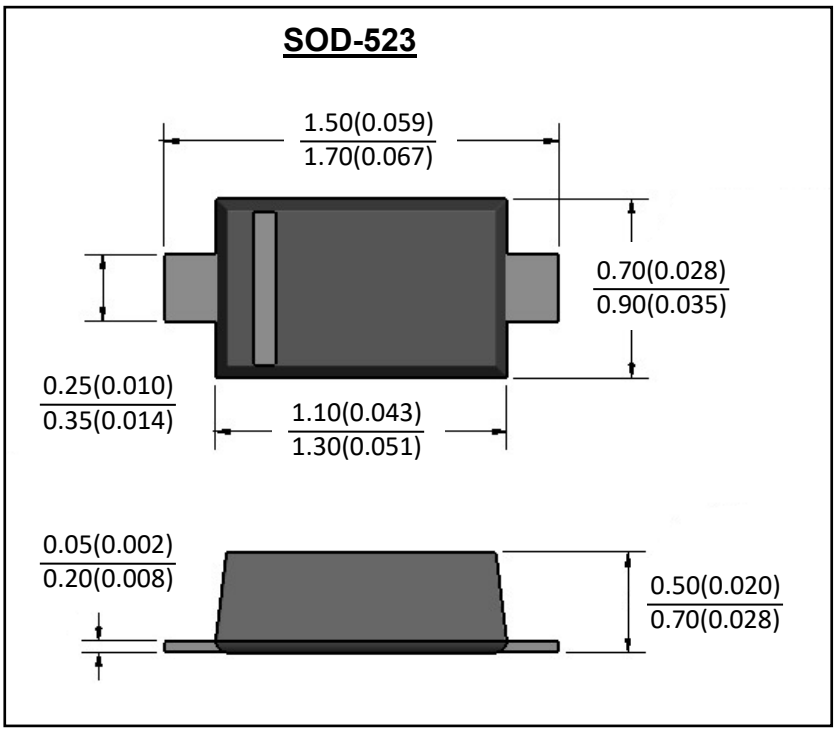
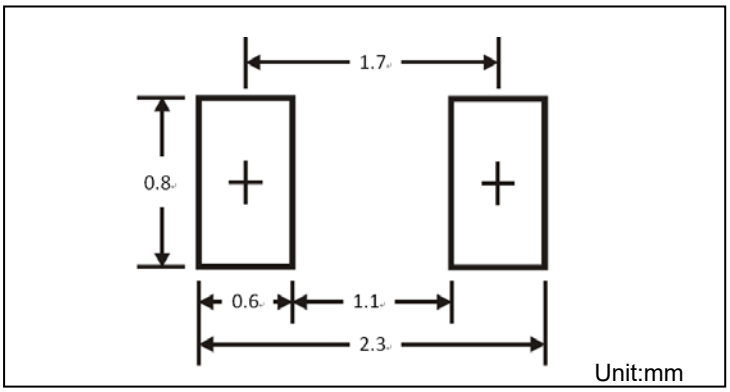


Figure 2. Capacitance Characteristics

■ Outline Dimensions



■ Soldering Footprint



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