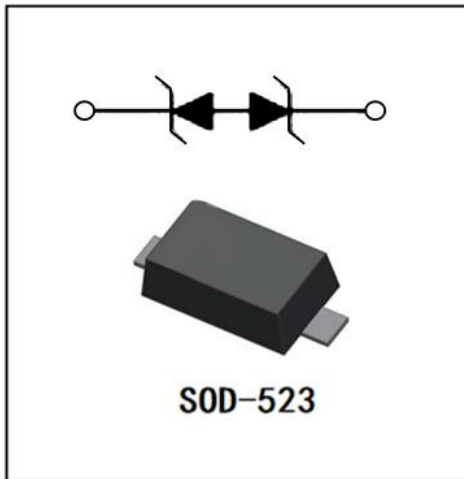


ESD Protection Diode



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:** 3Y

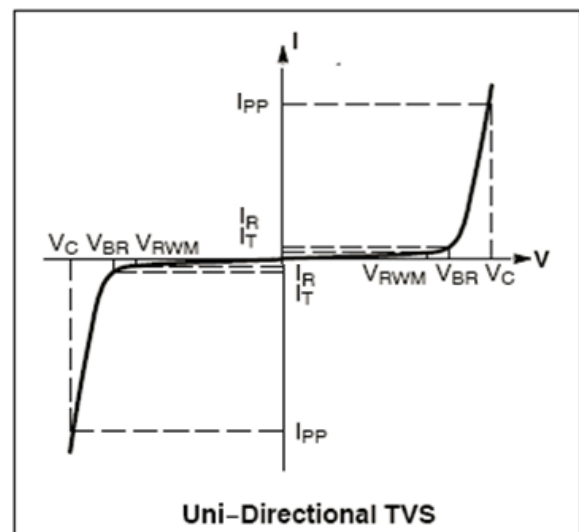
Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Operating Junction & Storage Temperature	T_J & T_{STG}	-45 to +125	°C
IEC61000-4-2(ESD)Air	V_{ESD}	±30	KV
IEC61000-4-2(ESD)Contact		±30	KV
JESD22-A114-B(ESD)Machine		±0.4	KV
JESD22-A114-B(ESD)Human Body		±16	KV
Peak Pulse Current	$I_{PP}^{(1)}$	8	A

(1). Non-repetitive current pulse 8/20 μ s 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 $f=1$ MHz	C





ESD3V3D5B

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V _{RWM} ⁽¹⁾	V				3.3
Reverse Leakage Current	I _R	uA	V _{RWM} =3.3V			0.5
Breakdown Voltage	V _(BR)	V	I _T =1mA	3.6		5.0
Clamping Voltage	V _C ⁽²⁾	V	I _{pp} =1A			8
Clamping Voltage	V _C ⁽²⁾	V	I _{pp} =8A			11
Peak Power Dissipation	P _{PK}	W	T _p =8/20us			88
Junction Capacitance	C _J	pF	V _R =0V, f=1MHz		15	

(1). Other voltages available upon request.

(2). Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESD3V3D5B	F2	Approximate 0.002	8000	80000	320000	7" reel

■ Characteristics (Typical)

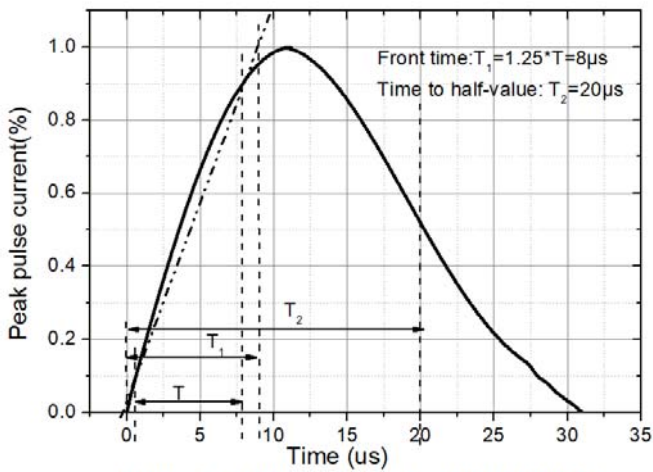


Figure 1. 8/20μs waveform per IEC61000-4-5

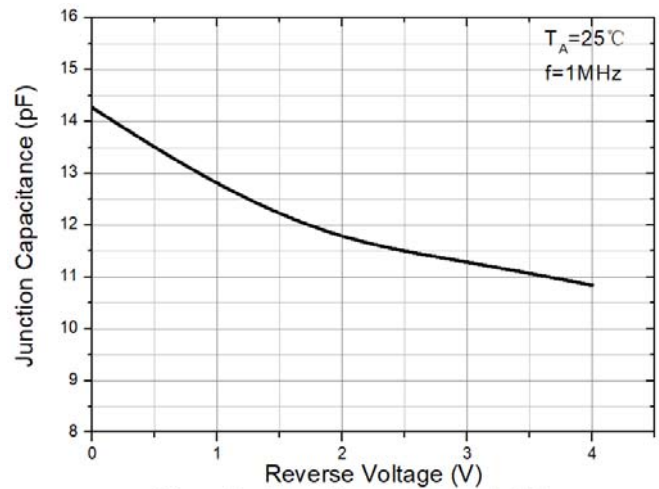


Figure 2. Capacitance Characteristics

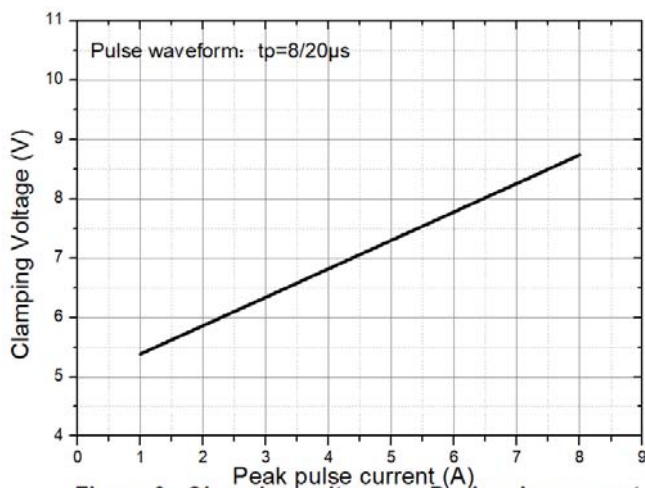


Figure 3. Clamping voltage vs. Peak pulse current

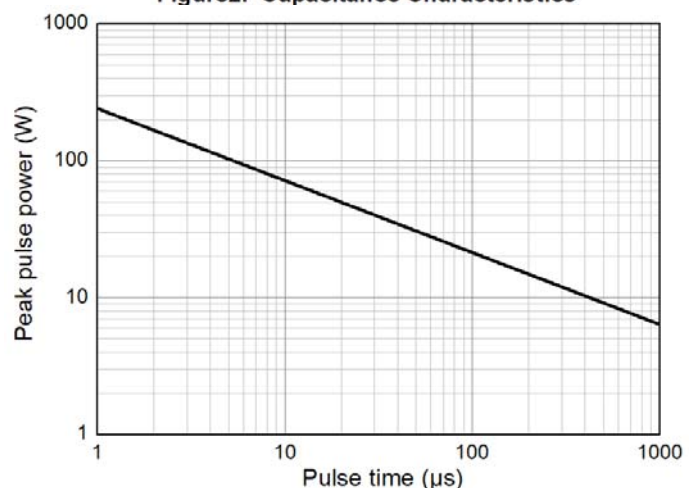
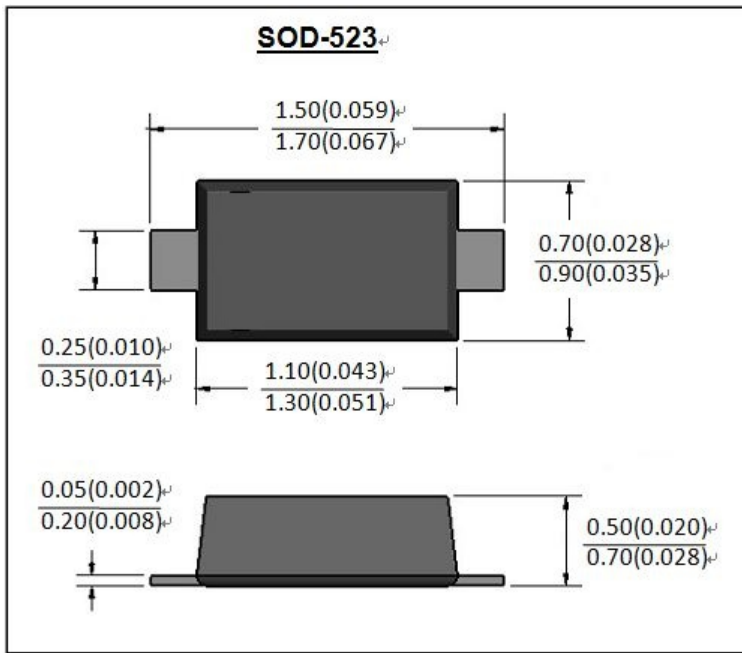
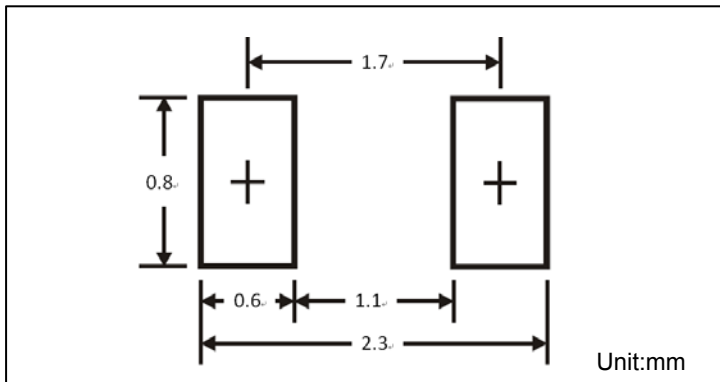


Figure 4 Non-repetitive peak pulse power vs. Pulse time

■ Outline Dimensions



■ Soldering Footprint





ESD3V3D5B

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