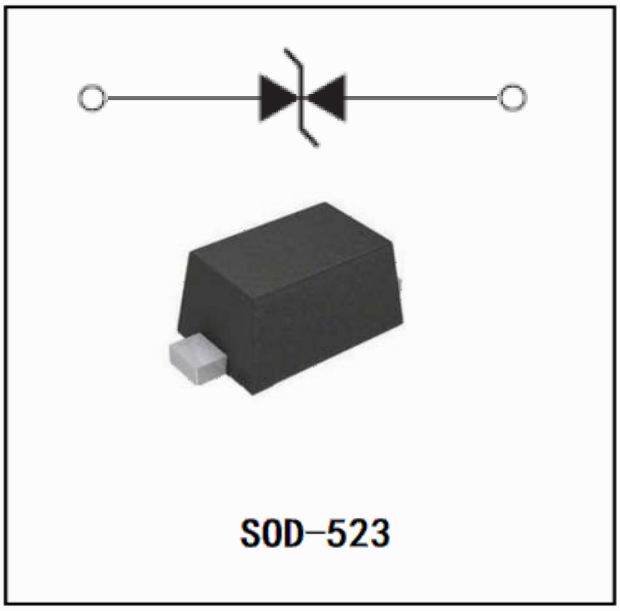
1-Line Ultra Low Capacitance Bi-directional TVS Diode

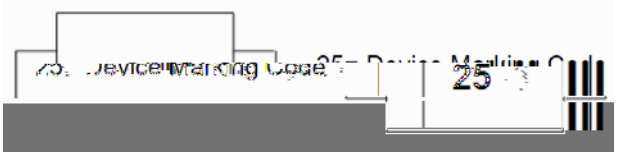


Features

- ●Ultra low capacitance: 0.3pF typical
- ●Ultra low leakage: nA level
- ●Operating voltage:5.0V
- ●Low clamping voltage
- ●Complies with following standards:
  - – IEC 61000-4-2 (ESD) immunity test
  - Air discharge: ±25Kv
  - Contact discharge: ±22kV
  - – IEC61000-4-5 (Lightning) 30A (8/20μs)
- ●RoHS Compliant

Mechanical Characteristics

- ●Package: SOD-523
- ●Case Material: “Green” Molding Compound
- ●Moisture Sensitivity: Level 1 per J-STD-020
- ●Marking Information: See Below



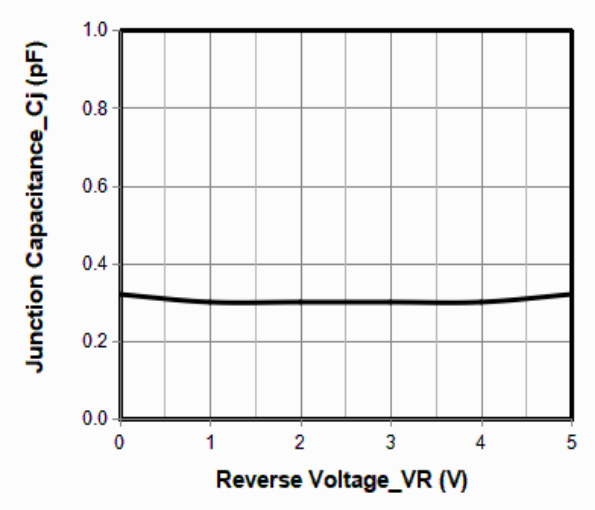
■Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (8/20μs)	Ppk	100	W
Peak Pulse Current (8/20μs)	I_{PP}	4	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	±25 ±22	KV
Operating Temperature Range	T_J	−55 to +125	
Storage Temperature Range	Tstg	−55 to +150	

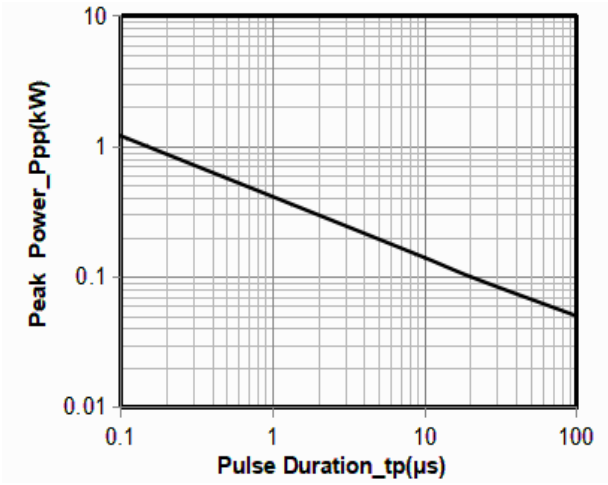
■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Reverse Working Voltage	V_{RWM}	V				5
Breakdown Voltage	V_{BR}	V	I_T =1mA	6.5		9.5
Reverse Leakage Current	I_R	μA	V_{RWM} = 5V		0.02	0.2
Clamping Voltage	V_C	V	I_{PP} = 1A (8/20μs pulse)			12
Clamping Voltage	V_C	V	I_{PP} = 4A (8/20μs pulse)			25
Junction Capacitance	C_J	pF	V_R = 0V, f = 1MHz		0.3	0.5

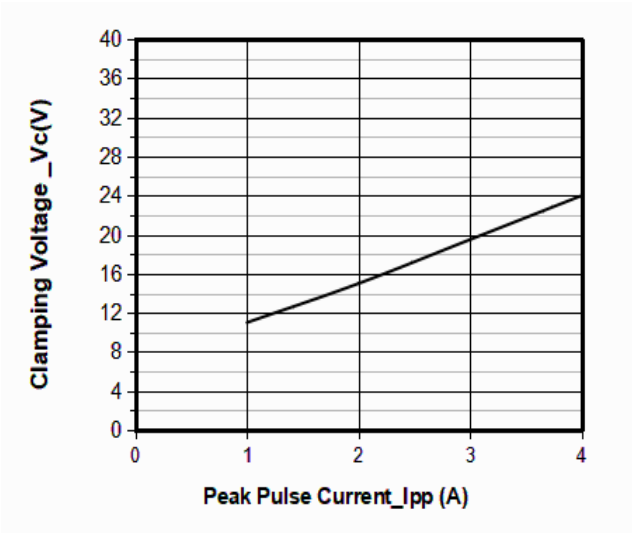
■ **Characteristics** (Typical)



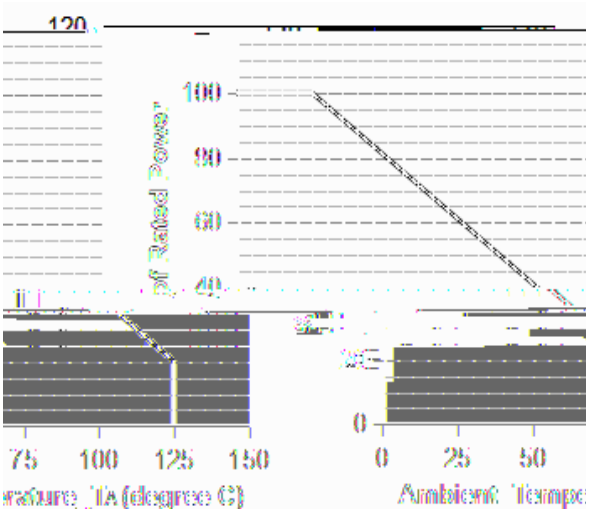
Junction Capacitance vs. Reverse Voltage



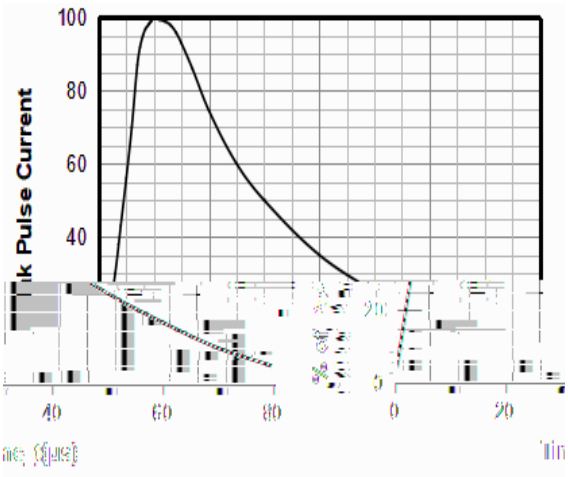
Peak Pulse Power vs. Pulse Time



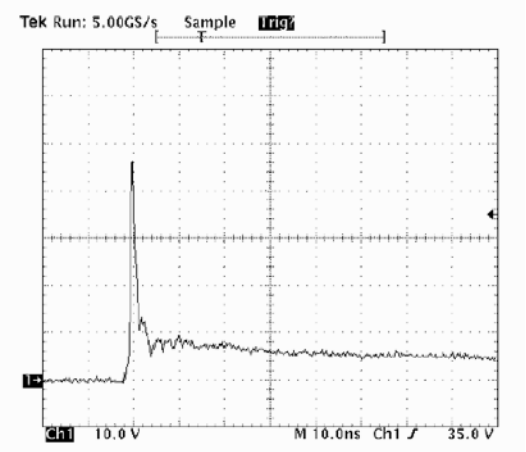
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve

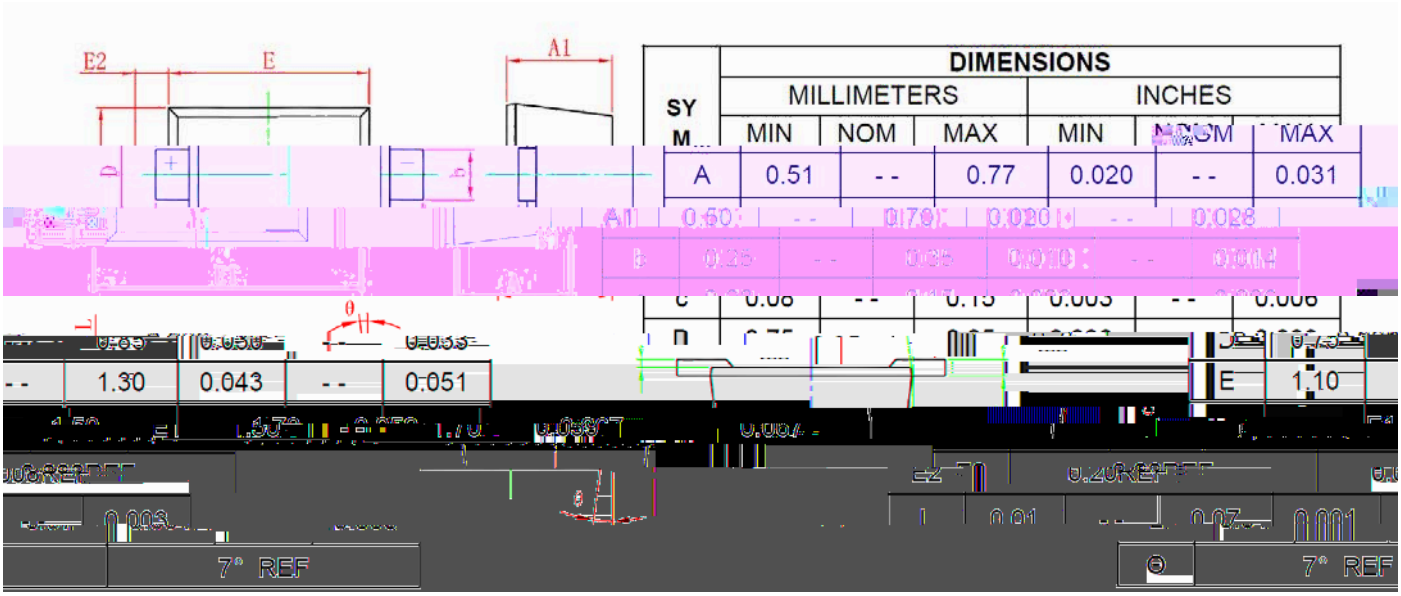


8/20μs Pulse Waveform



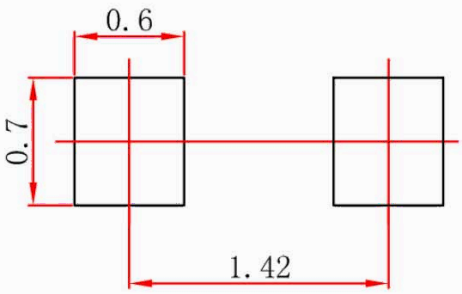
Note Data is taken with a 10x attenuator
ESD Clamping Voltage
+8 kV Contact per IEC61000−4−2

■ Outline Dimensions



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.51	- -	0.77	0.020	- -	0.031
A1	0.50	- -	0.70	0.020	- -	0.028
b	0.25	- -	0.35	0.010	- -	0.014
c	0.08	- -	0.15	0.003	- -	0.006
D	1.30	0.043	- -	0.051		
E	1.10					

■ Soldering Footprint



Unit: mm

Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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