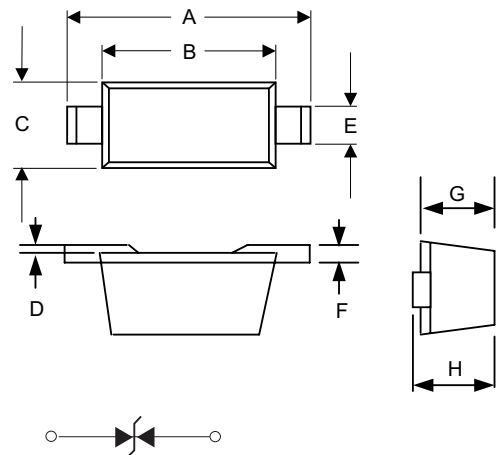




## ESD3V3D5B

## 3.3Volts ESD Protection Devices

### SOD523



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.059	.067	1.50	1.70	
B	.043	.051	1.10	1.30	
C	.030	.033	0.75	0.85	
D	.001	.003	0.01	0.07	
E	.010	.014	0.25	0.35	
F	.003	.006	0.08	0.15	
G	.020	.028	0.50	0.70	
H	.020	.031	0.51	0.77	

## Features

- Halogen free available upon request by adding suffix "-HF"
- Low operating voltage:3.3v
- Low clamping voltage
- Protects one data or power line.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: 3Y

## Maximum Ratings

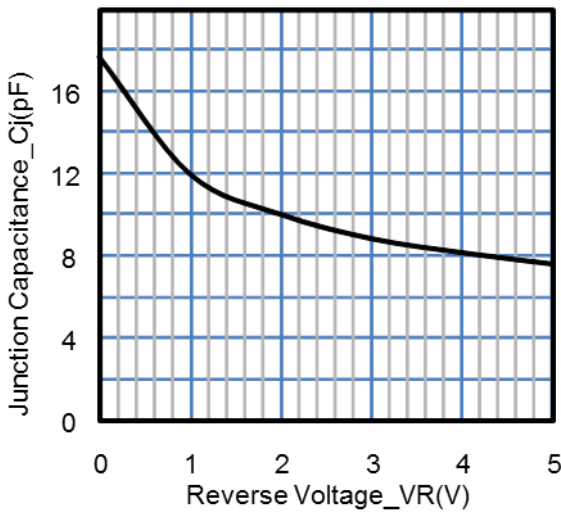
- Operating Junction Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		$\pm 30$ $\pm 30$	KV
Peak Pulse Current(8/20 us)	$I_{pp}$	8	A
Peak Pulse Power	$P_{pk}$	96	W

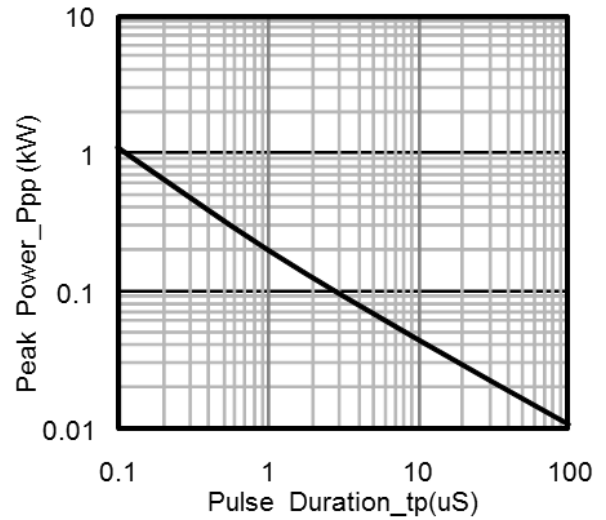
### ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Test Condition
Reverse Working Voltage	VRWM			3.3V	
Breakdown Voltage	VBR	4.2		6.5V	
Reverse Leakage Current	$I_R$			0.5μA	
Clamping Voltage	VC			8V	I <sub>PP</sub> = 1A (8 x 20μs pulse)
Clamping Voltage	VC			12V	I <sub>PP</sub> = 8A (8 x 20μs pulse)
Junction Capacitance	CJ		16pF		VR = 0V, f = 1MHz

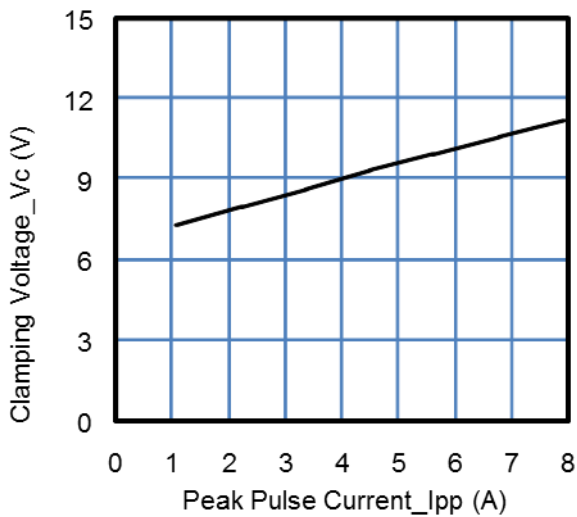
**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**



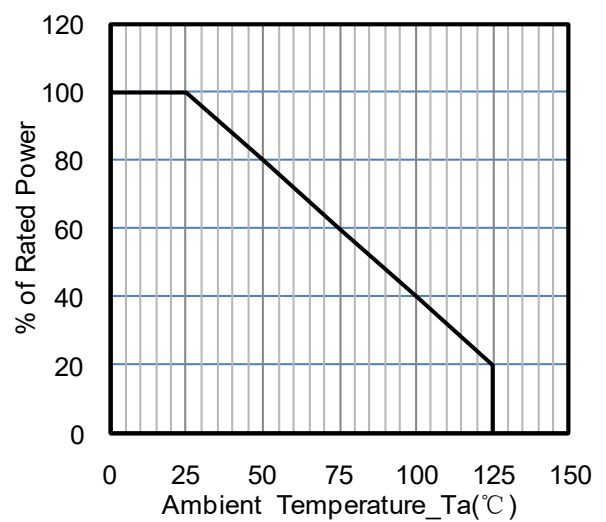
**Junction Capacitance vs. Reverse Voltage**



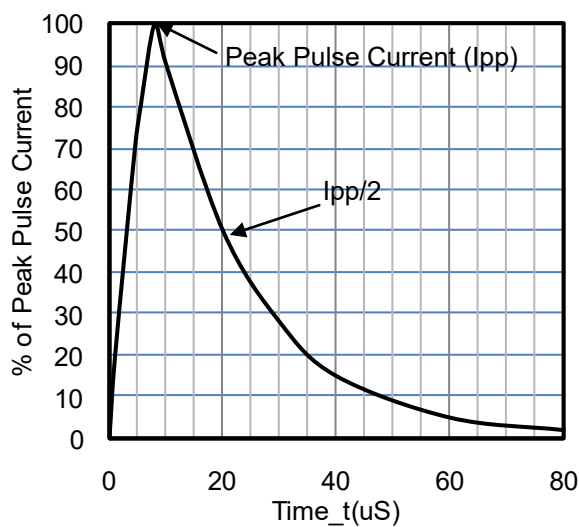
**Peak Pulse Power vs. Pulse Time**



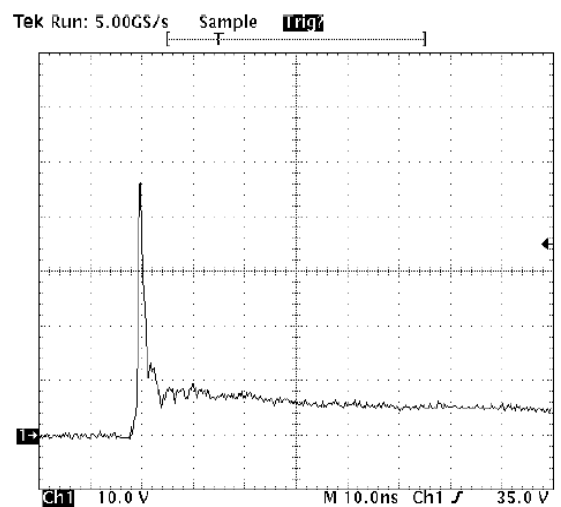
**Clamping Voltage vs. Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )**



**Power Derating Curve**



**8 X 20uS Pulse Waveform**



**ESD Clamping Voltage  
8 kV Contact per IEC61000-4-2**



## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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