



Micro Commercial Components



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ESD12VD3B

12 Volts ESD Protection Devices

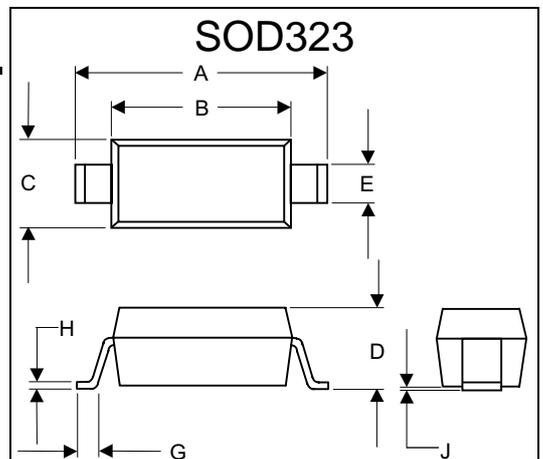
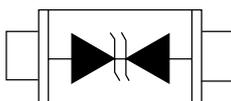
Features

- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Low clamping voltage
- Low leakage
- Protects one power or I/O port
- ESD protection > 35 kV
- Fast response ,response time less than 1ns.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

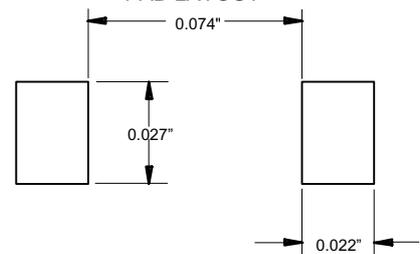
- Operating Junction & Storage Temperature: -55°C to +150°C

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		± 15 ± 8	KV
IEC 61000-4-4 (EFT) (5/50ns)		40	A
Peak Pulse Power ($t_p=8/20\mu S$)	Ppp	350	W



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse stand-off voltage	V_{RWM}				12	V
Reverse Breakdown voltage	V_{BR}	$I_t = 1\text{mA}$	13.5			V
Reverse Leakage Current	I_R	$V_{RWM} = 12\text{V } T=25^\circ\text{C}$			1	μA
Forward Voltage	V_F	$I_F = 10\text{mA}$			0.8	V
Clamping Voltage	V_C	$I_{PP}=1\text{A } t_P = 8/20\mu\text{s}$			15.5	V
Junction Capacitance	C_j	$V_R=0\text{V } f = 1\text{MHz}$		80	100	pF

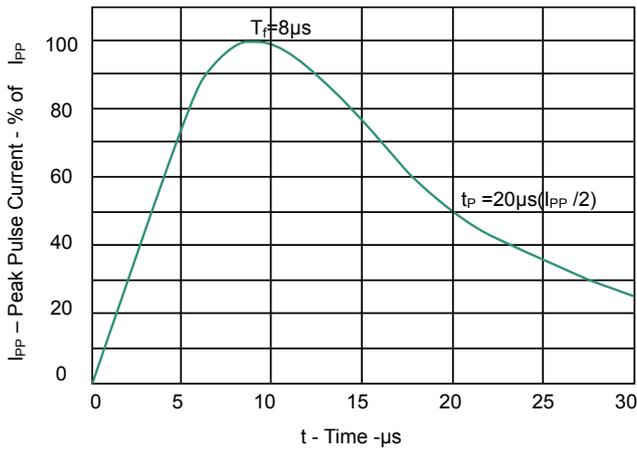


Fig 1. Pulse Waveform

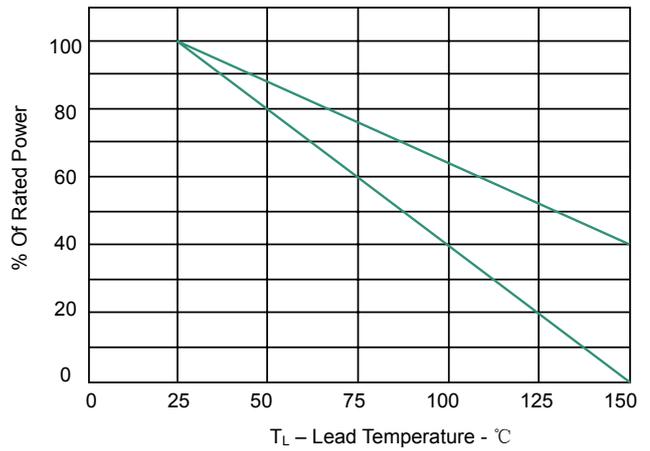


Fig 2. Power Derating Curve



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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

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