

**Features**

- AEC-Q101 Qualified
- Protects One Data or Power Line
- Low Leakage
- Ultra Low Clamping Voltage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

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

MCC Part Number	Device Marking
ESD24VD3BHE3	24B.

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Power (8/20µs)	P <sub>PK</sub>	300W

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Marking Information**

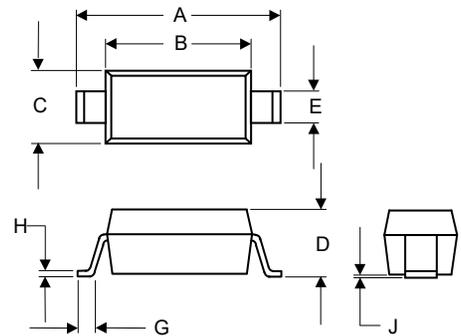


**Internal Structure**



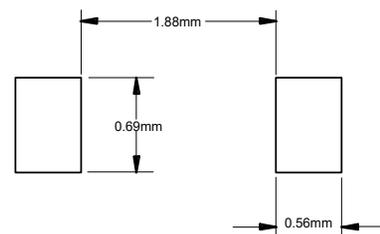
**ESD Protection Device**

**SOD-323**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	----	0.006	----	0.15	

**Suggested Solder Pad Layout**



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	26.7			V
Reverse Leakage Current	$I_R$	$V_{RWM}=24V$			1.0	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			7	A
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$			32	V
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=5A, t_p=8/20\mu s$			42	V
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=7A, t_p=8/20\mu s$			44	V
Dynamic Resistance <sup>Note2</sup>	$R_{DYN}$	TLP, $t_p=100ns$		0.44		$\Omega$
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		20	40	pF

Note:

1. Non-repetitive current pulse, according to IEC61000-4-5.
2. I/O to Ground, TLP parameter:  $Z_0=50\Omega, t_p=100ns, t_r=2ns$ , averaging window from 60ns to 80ns.  $R_{DYN}$  is calculated from 4A to 16A.

## Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

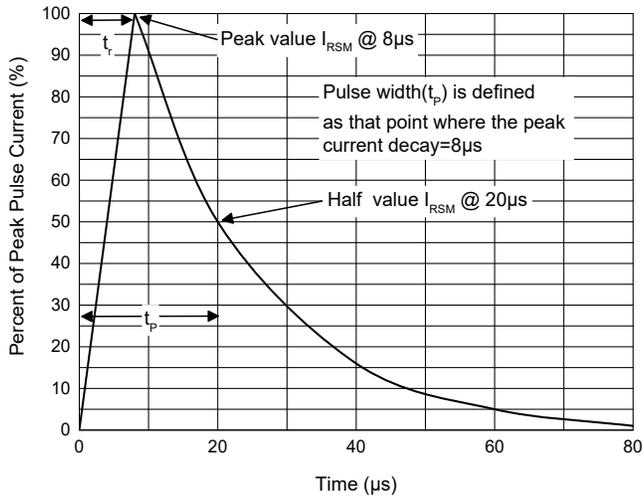


Fig. 2 - Non-Repetitive Peak Pulse Power

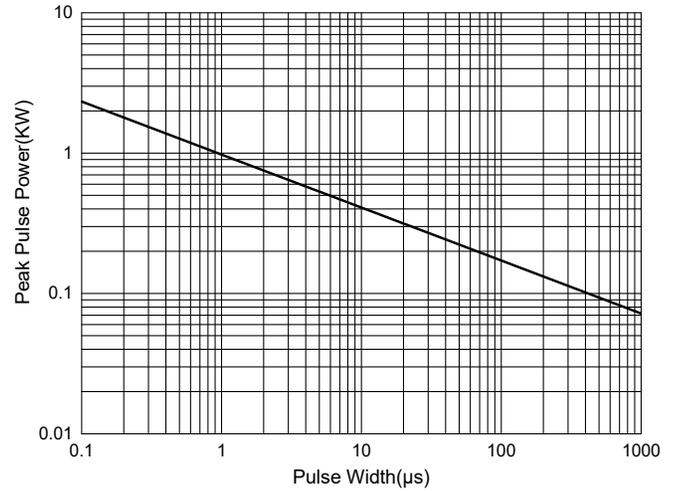


Fig. 3 - Capacitance Characteristics

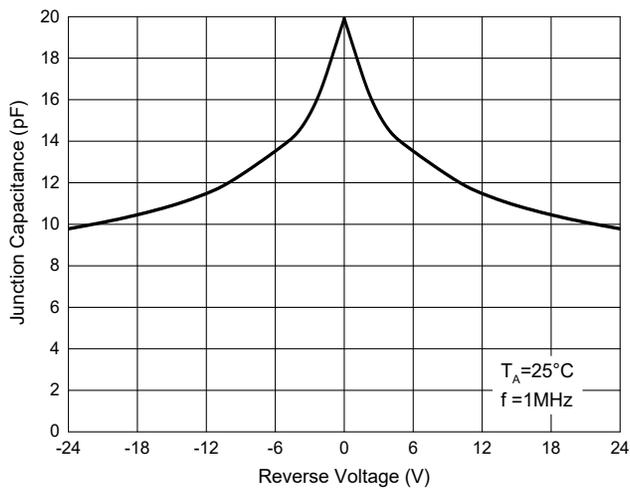


Fig. 4 - TLP Measurement

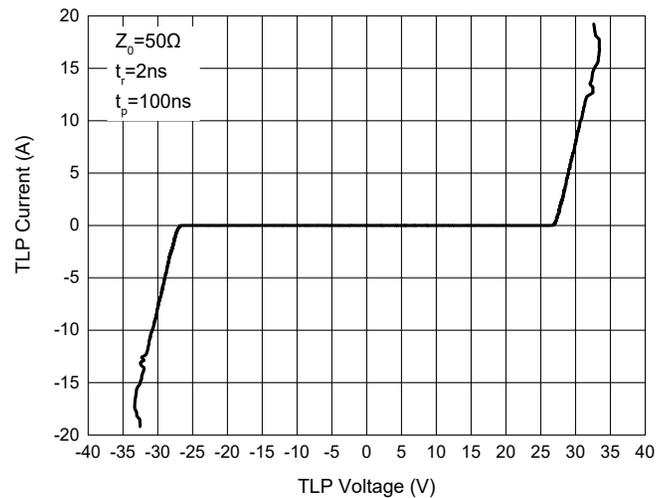
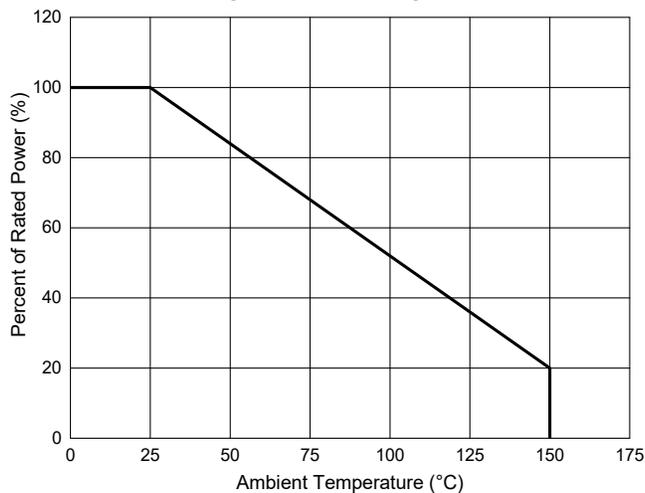


Fig. 5 - Pulse Derating Curve



## Ordering Information

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

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