

### Features

- AEC-Q101 Qualified
- Low Clamping Voltage
- Protects One Data Line of the LIN
- 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
ESD1524D3BHE3A	AM

IEC61000-4-2(ESD)		Air Contact	±30KV
Human Body Model(HBM)		V <sub>ESD</sub>	30KV
Peak Pulse Current (8/20µs)(Note 2)	Pin 1 to 2	I <sub>PP</sub>	5A
	Pin 2 to 1		3A
Peak Pulse Power (8/20µs)		P <sub>PK</sub>	160W

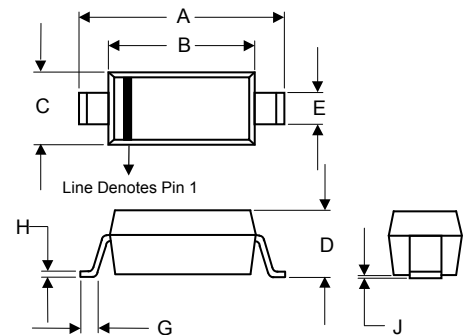
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.  
2. Non-repetitive current pulse 8/20 µs exponential decay waveform according to IEC61000-4-5.

### Circuit and Pin Schematic



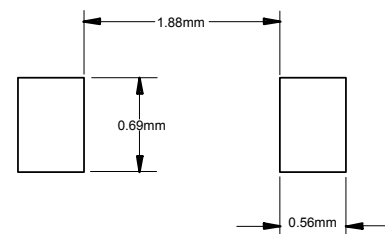
## ESD Protection Device

### SOD-323



DIM	INCHES		MM		NOTE
	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
<b>Pin 1 to Pin 2 (15V TVS)</b>						
Reverse Working Voltage	$V_{RWM}$				15	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	17.1		20.3	V
Reverse Leakage Current	$I_R$	$V_{RWM}=15V$			50	nA
Clamping Voltage	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$			25	V
Clamping Voltage	$V_C$	$I_{PP}=5A, t_p=8/20\mu s$			35	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$			30	pF
<b>Pin 2 to Pin 1 (24V TVS)</b>						
Reverse Working Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	25.4		30.3	V
Reverse Leakage Current	$I_R$	$V_{RWM}=24V$			50	nA
Clamping Voltage	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$			40	V
Clamping Voltage	$V_C$	$I_{PP}=3A, t_p=8/20\mu s$			50	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$			30	pF

**Curve Characteristics**

Fig. 1 - 8 X 20µs Pulse Waveform

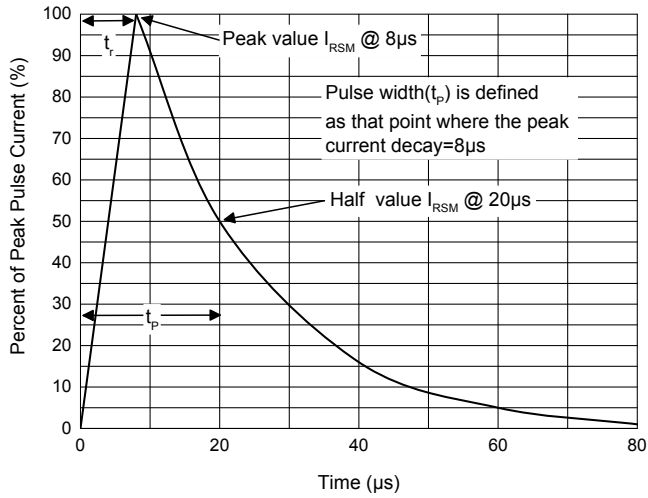


Fig. 2 - Non-Repetitive Peak Pulse Power

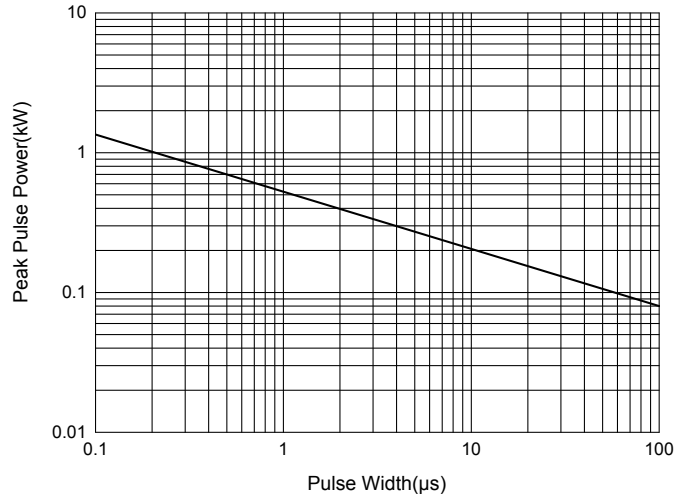


Fig. 3 - Clamping Voltage Characteristics

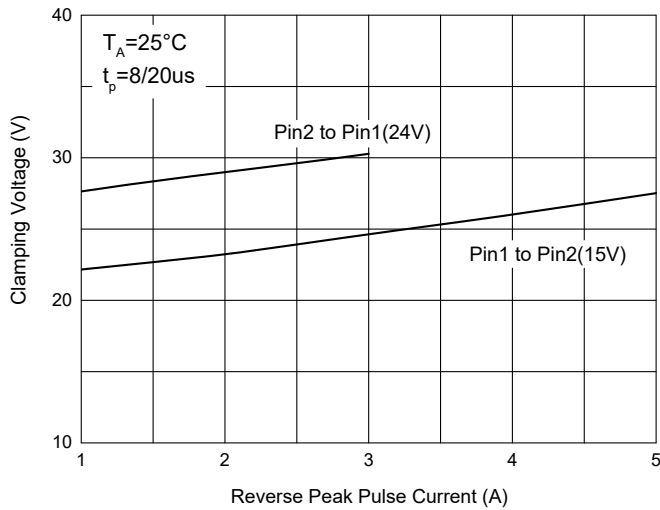


Fig. 4 - Capacitance Characteristics

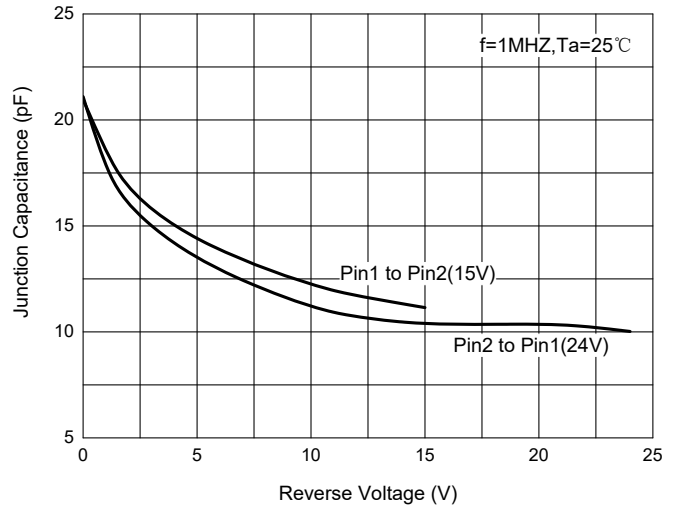
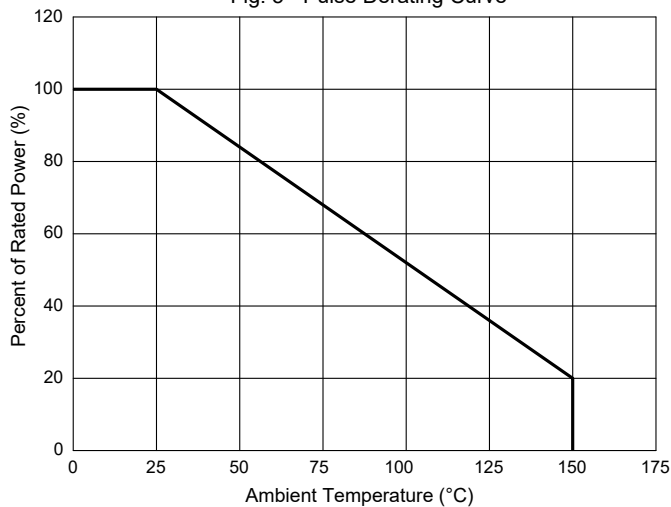


Fig. 5 - Pulse Derating Curve



## Ordering Information

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

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