

Features

- For Sensitive ESD Protection
- Low Reverse Stand-Off Voltage
- Low Leakage
- Ultra-Low Clamping Voltage
- IEC 61000-4-2 Level 4 ESD Protection
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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

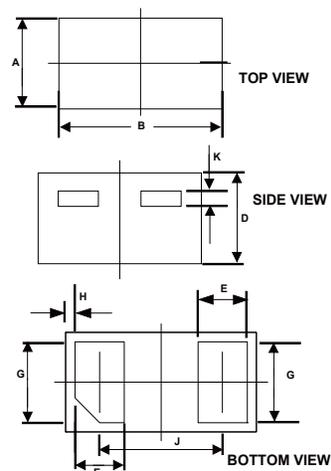
MCC Part Number	Device Marking	
ESDBL5V0AE1	H	
IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
ESD Voltage Per Human Body Model		16KV
ESD Voltage Machine Model		400V
Peak Pulse Power (8/20us Waveform)	P _{PP}	62.5W
Peak Pulse Current (8/20us Waveform)	I _{PP}	5A

Pin Configuration



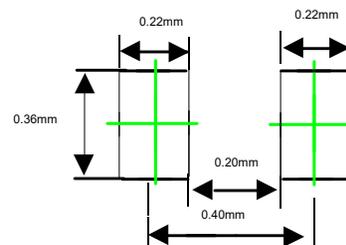
ESD Protection Device

0201



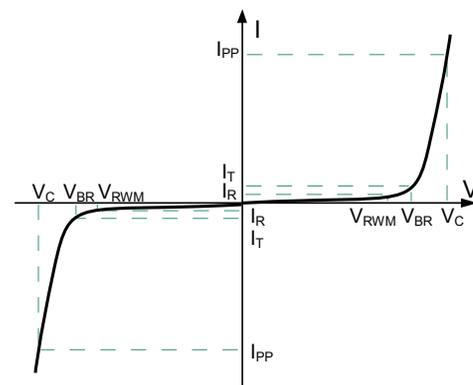
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.011	0.015	0.270	0.370	
B	0.022	0.026	0.570	0.670	
D	0.011	0.013	0.275	0.340	
E	0.005	0.008	0.125	0.195	
G	0.009	0.012	0.225	0.295	
H	0.001		0.030		TYP.
J	0.014	0.017	0.365	0.435	
K	0.002		0.050		TYP.

SUGGESTED SOLDER PAD LAYOUT



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

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
C	Capacitance @ $V_R=0$ and $f=1\text{MHz}$



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	5.8		8	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			0.1	μA
Clamping Voltage	V_C	$I_{PP}=5\text{A}$, $t_p=8/20\mu\text{s}$			12.5	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		10		pF

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

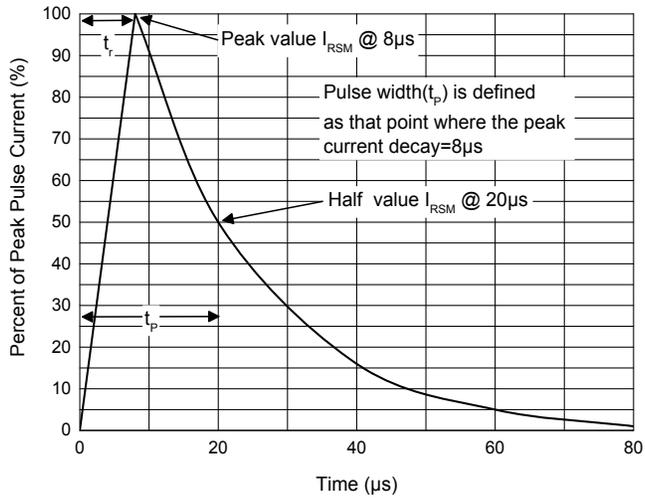
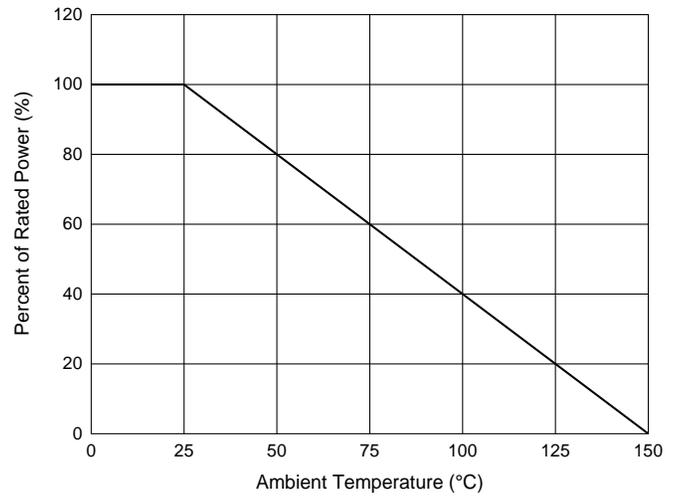


Fig. 2 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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