Features

- Solid-state Silicon technology
- Ultra Low Capacitance
- Low Clamping Voltage
- Halogen Free. “Green” Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

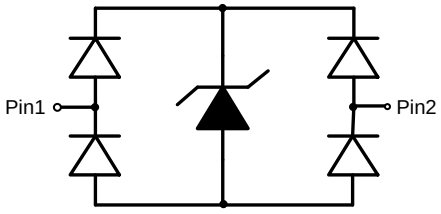
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESDSBSLC5V0AE2	U5

IEC61000-4-2(ESD)	Air Contact	±15KV ±15KV
Peak Pulse Current(8/20μs)	I_{PP}	4A
Peak Pulse Power (8/20μs)	P_{PK}	44W

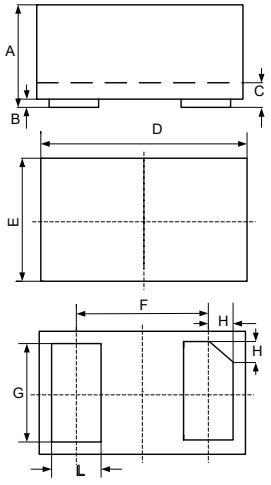
Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



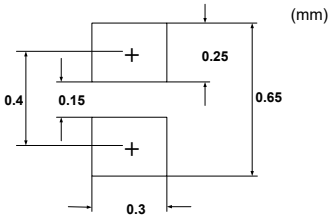
Snap Back ESD Protection Device

0201-A



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.009	0.013	0.23	0.33	
B	0.000	0.002	0.00	0.05	
C	0.005	0.007	0.12	0.18	
D	0.022	0.026	0.55	0.65	
E	0.010	0.014	0.25	0.35	
F	0.014		0.355		TYP.
G	0.008	0.011	0.22	0.28	
H	0.003		0.079		TYP.
L	0.006	0.009	0.16	0.22	

SUGGESTED SOLDER PAD LAYOUT



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 = 1mA	6	8		V
Reverse Leakage Current	I_R	V_{RWM}=3.3V		<1	50	nA
Clamping Voltage(Note 1)	V_C	I_{PP}=16A, t_P=100ns		14		V
Dynamic Resistance(Note 1)	R_{DYN}			0.55		Ω
Clamping Voltage(Note 2)	V_C	V_{ESD}=8KV		14		V
Clamping Voltage(Note 3)	V_C	I_{PP}=1A, t_P=8/20μs		8.3		V
Clamping Voltage(Note 3)	V_C	I_{PP}=4A, t_P=8/20μs		10		V
Junction Capacitance	C_J	V_R=2.5V, f=1MHz		0.35	0.5	pF

Note:

1. TLP Parameter: Z_0=50Ω, t_p=100ns, t_r=2ns, Averaging Window from 60ns to 80ns. RDYN is Calculated from 4A to 16A.
2. Contact Discharge Mode, According to IEC61000-4-2.
3. Non-repetitive Current Pulse, According to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

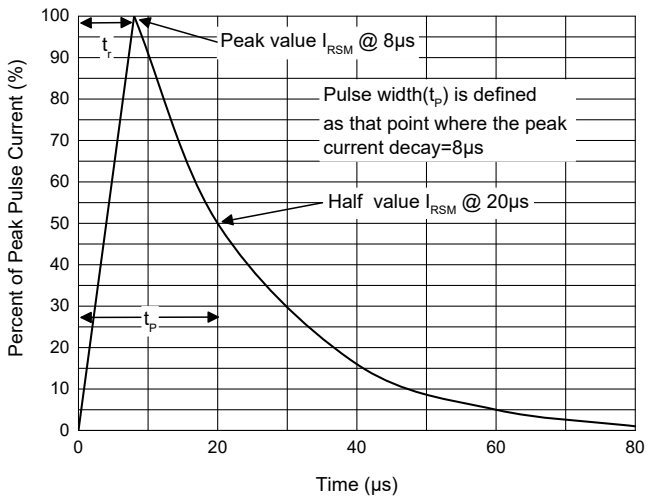


Fig. 2 - Non-Repetitive Peak Pulse Power

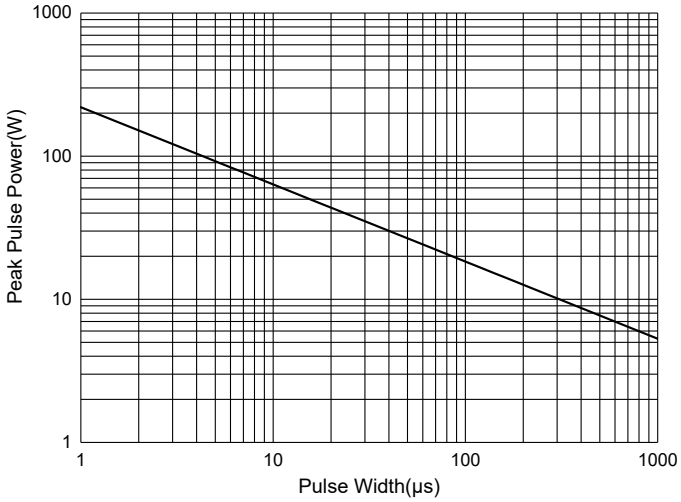


Fig. 3 - Capacitance Characteristics

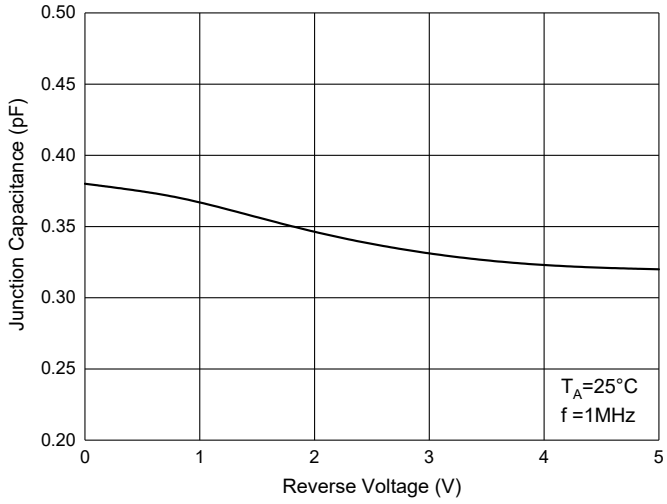


Fig. 4 - Clamping Voltage Characteristics

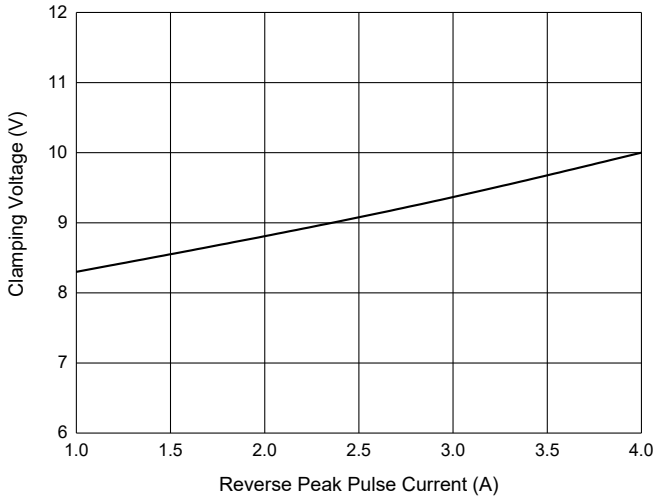


Fig. 5 - Pulse Derating Curve

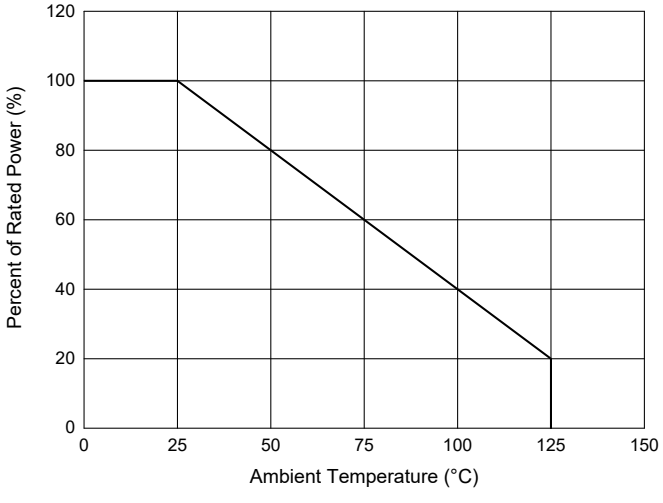


Fig. 6 - TLP Measurement