

Features

- Solid-state Silicon technology
- Ultra Low Capacitance
- 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

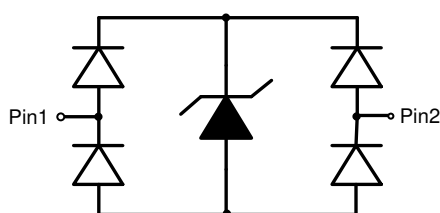
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESDSBSLC3V3AE2	U3

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Current(8/20µs)	I _{PP}	4A
Peak Pulse Power (8/20µs)	P _{PK}	34W

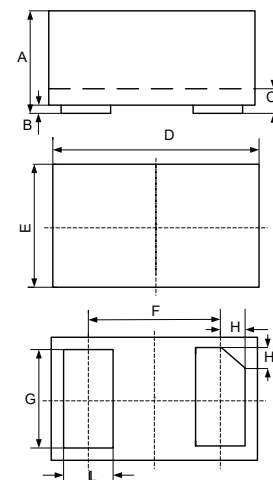
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



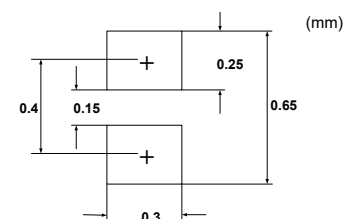
**Snap Back
ESD Protection
Device**

0201-A



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}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	7	10		V
Reverse Leakage Current	I_R	$V_{RWM}=3.3\text{V}$		<1	50	nA
Clamping Voltage ^(Note 2)	V_C	$I_{PP}=16\text{A}, t_p=100\text{ns}$		9		V
Dynamic Resistance ^(Note 2)	R_{DYN}			0.25		Ω
Clamping Voltage ^(Note 3)	V_C	$V_{ESD}=8\text{KV}$		9		V
Clamping Voltage ^(Note 4)	V_C	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$		4.5	5.5	V
Clamping Voltage ^(Note 4)	V_C	$I_{PP}=4\text{A}, t_p=8/20\mu\text{s}$		7	8.5	V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		0.35	0.5	pF

Note:

2. . TLP Parameter: $Z_0=50\Omega$, $t_p=100\text{ns}$, $t_r=2\text{ns}$, Averaging Window from 60ns to 80ns. R_{DYN} is Calculated from 4A to 16A.
3. . Contact Discharge Mode, According to IEC61000-4-2.
4. . Non-repetitive Current Pulse, According to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

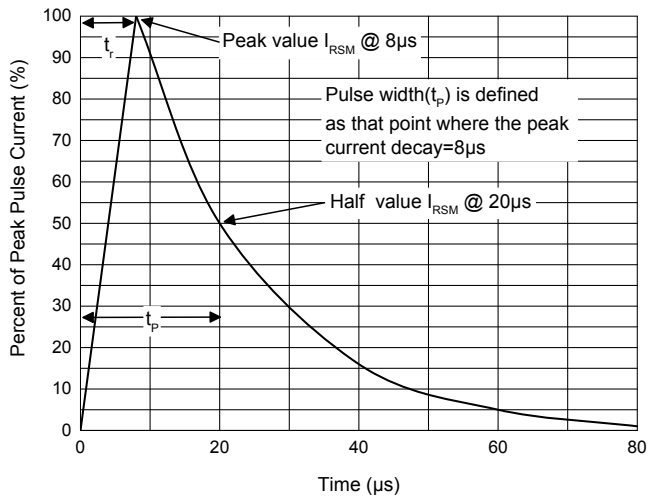


Fig. 2 - Non-Repetitive Peak Pulse Power

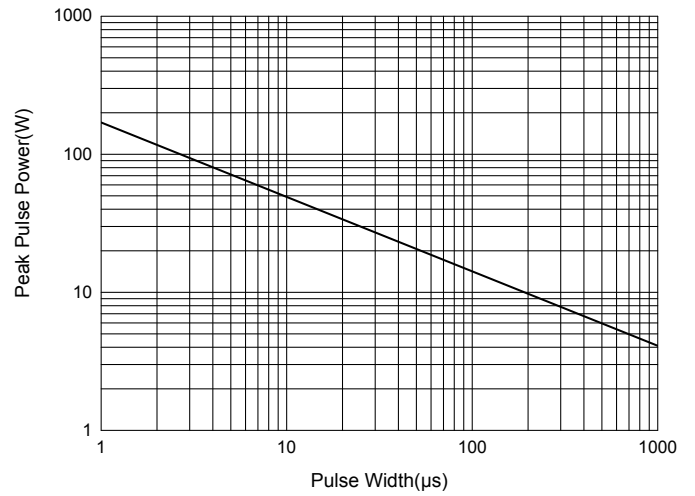


Fig. 3 - Capacitance Characteristics

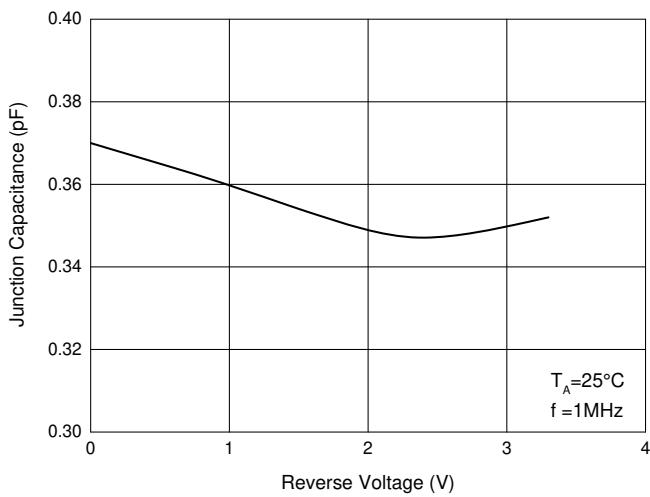


Fig. 4 - Clamping Voltage Characteristics

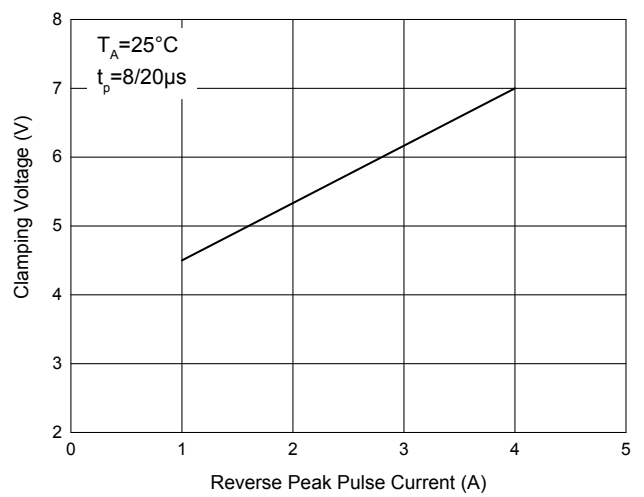
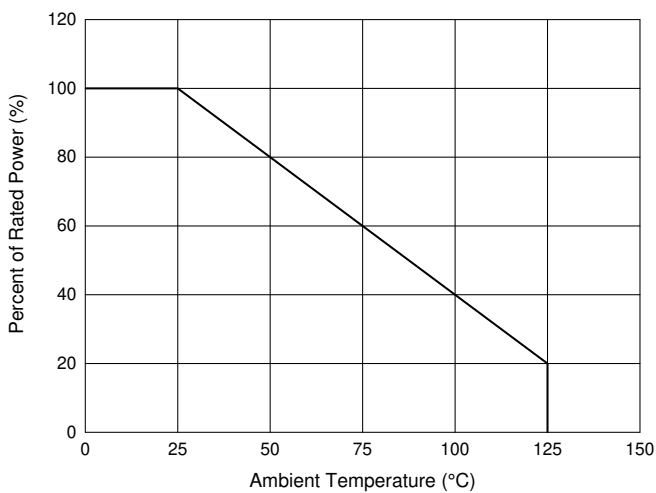


Fig. 5 - Pulse Derating Curve



Ordering Information

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

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