

Features

- Solid-state Silicon technology
- Ultra Low Capacitance
- Ultra Low Leakage Current
- 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
ESDSBSLC5V0L	1L

IEC61000-4-2(ESD)	Air Contact	±20KV ±20KV
Peak Pulse Current(8/20µs)	I _{PP}	3.6A
Peak Pulse Power (8/20µs)	P _{PK}	42W

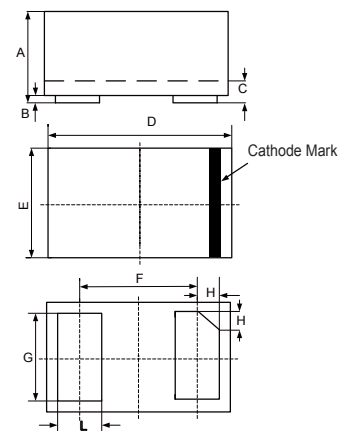
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



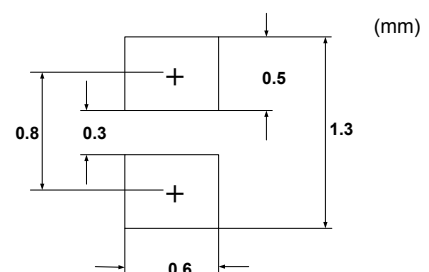
**Snap Back
ESD Protection
Device**

DFN1006-2



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.002	0.00	0.05	
C	0.005	0.007	0.12	0.18	
D	0.037	0.041	0.95	1.05	
E	0.022	0.026	0.55	0.65	
F	0.026		0.650		TYP.
G	0.018	0.022	0.45	0.55	
H	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5.5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	7	8	9	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$		<1	100	nA
Forward Voltage	V_F	$I_F=10\text{mA}$	0.6	0.9	1.2	V
Clamping Voltage ^(Note 2)	V_C	$I_{PP}=16\text{A}$, $t_p=100\text{ns}$		14		V
Dynamic Resistance ^(Note 2)	R_{DYN}			0.33		Ω
Clamping Voltage ^(Note 3)	V_C	$V_{ESD}=8\text{KV}$		14		V
Clamping Voltage ^(Note 4)	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$			10	V
Clamping Voltage ^(Note 4)	V_C	$I_{PP}=3.5\text{A}$, $t_p=8/20\mu\text{s}$			12	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$		0.4	0.65	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. RDYN 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

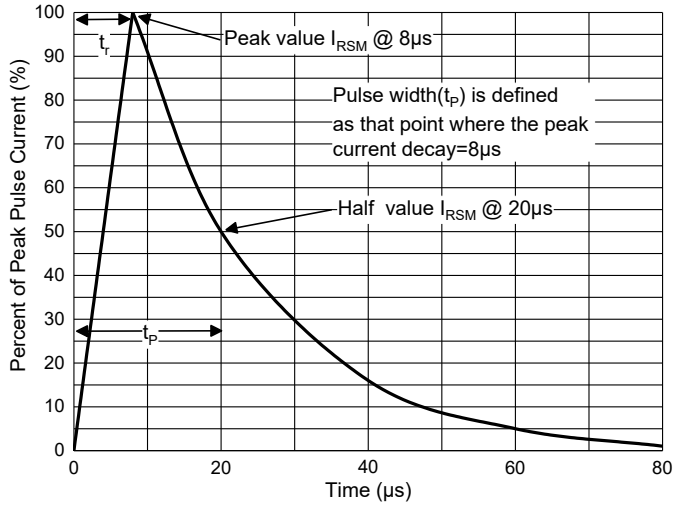


Fig. 2 - Non-Repetitive Peak Pulse Power

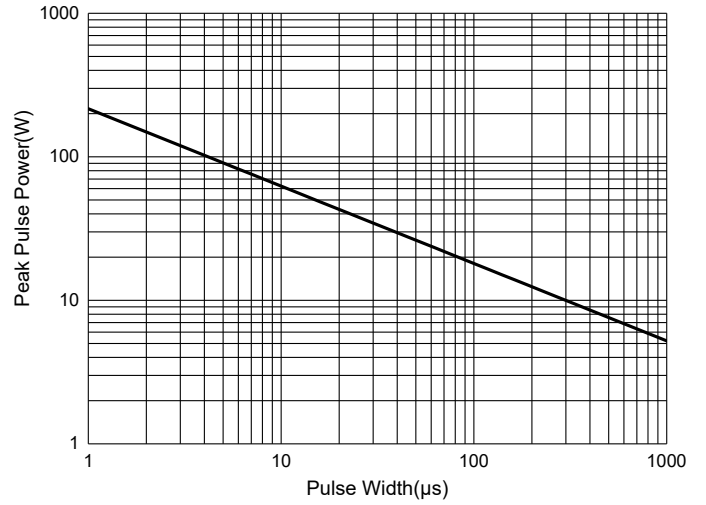


Fig. 3 - Capacitance Characteristics

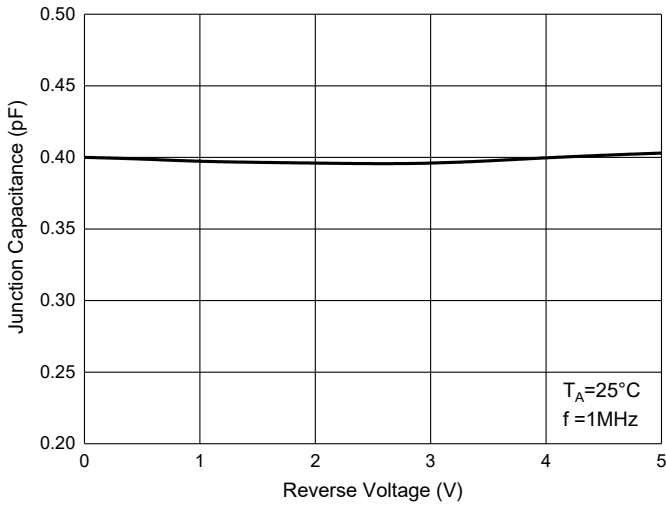


Fig. 4 - Clamping Voltage Characteristics

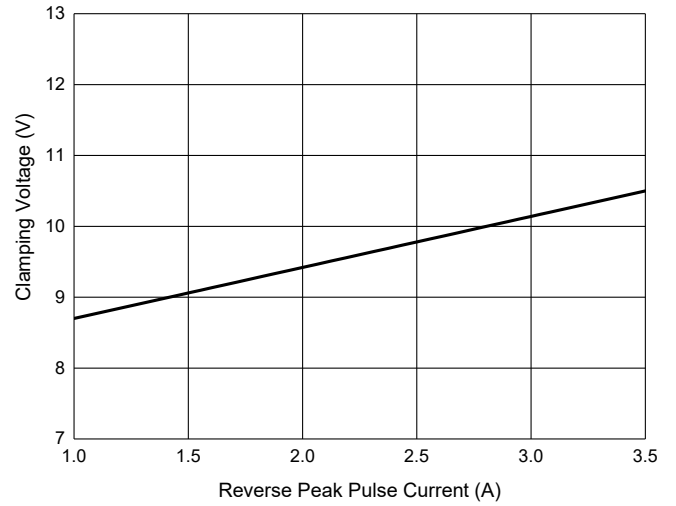


Fig. 5 - Pulse Derating Curve

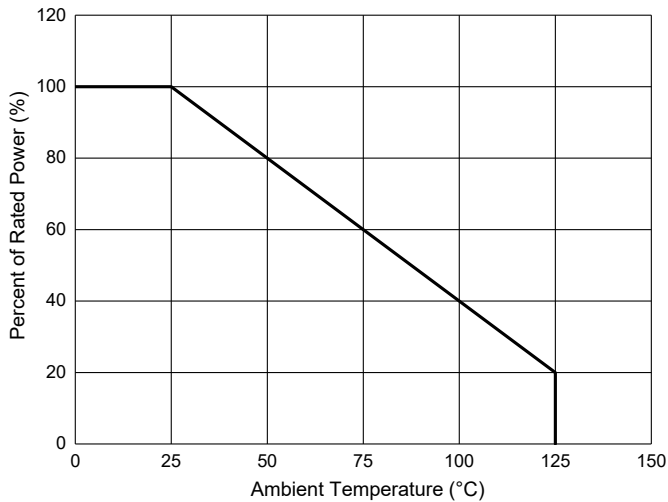


Fig. 6 - TLP Measurement

