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

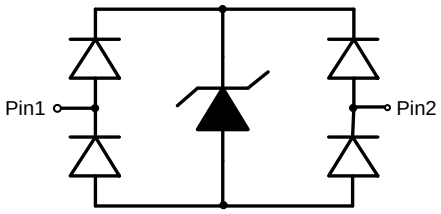
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESDSBPLC3V3LB	3Y

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Current(8/20μs)	I_{PP}	7A
Peak Pulse Power (8/20μs)	P_{PK}	53W

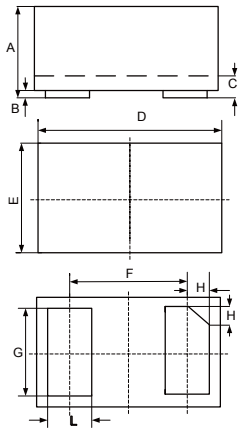
Note：
1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



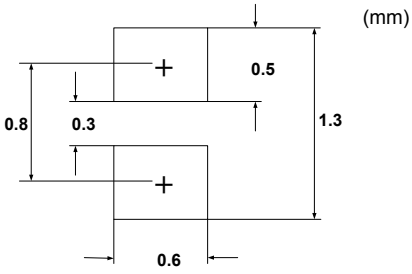
Snap Back ESD Protection Device

DFN1006-2



DIMENSIONS					
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}				3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	7	10		V
Reverse Leakage Current	I_R	V_{RWM}=3.3V			50	nA
Clamping Voltage(Note 2)	V_C	I_{PP}=16A, t_P=100ns		6.3		V
Dynamic Resistance(Note 2)	R_{DYN}			0.16		Ω
Clamping Voltage(Note 3)	V_C	V_{ESD}=8KV		6.3		V
Clamping Voltage(Note 4)	V_C	I_{PP}=1A, t_P=8/20μs		3.1	4.5	V
Clamping Voltage(Note 4)	V_C	I_{PP}=7A, t_P=8/20μs		6	7.5	V
Junction Capacitance	C_J	V_R=0V, f=1MHz		0.8	1	pF

Note:

2. TLP Parameter: Z_0=50Ω, t_p=100ns, t_r=2ns, 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

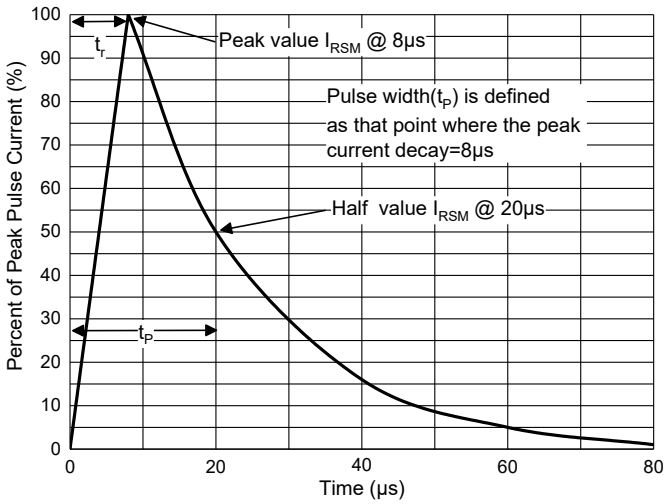


Fig. 2 - Non-Repetitive Peak Pulse Power

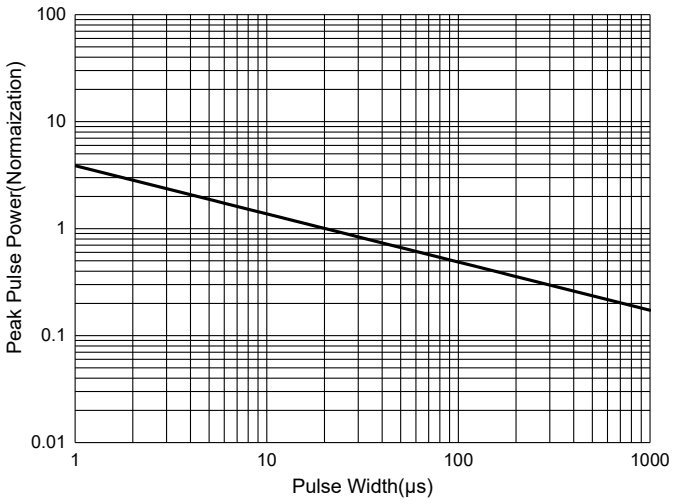


Fig. 3 - Capacitance Characteristics

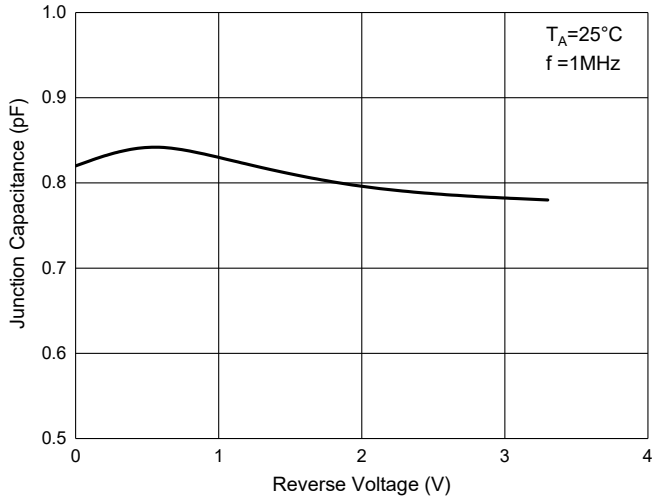


Fig. 4 - Clamping Voltage Characteristics

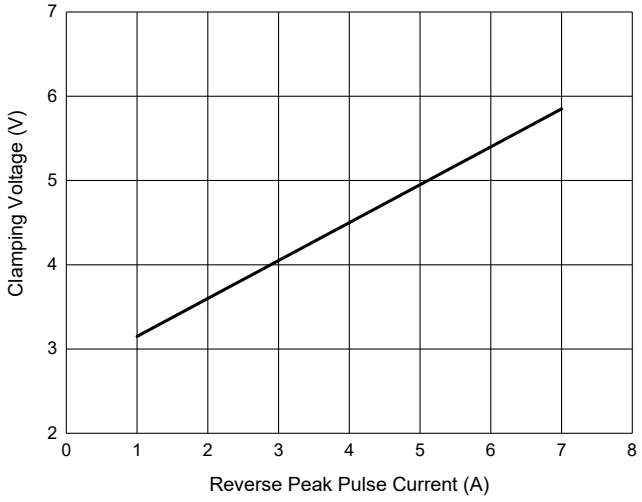


Fig. 5 - Pulse Derating Curve

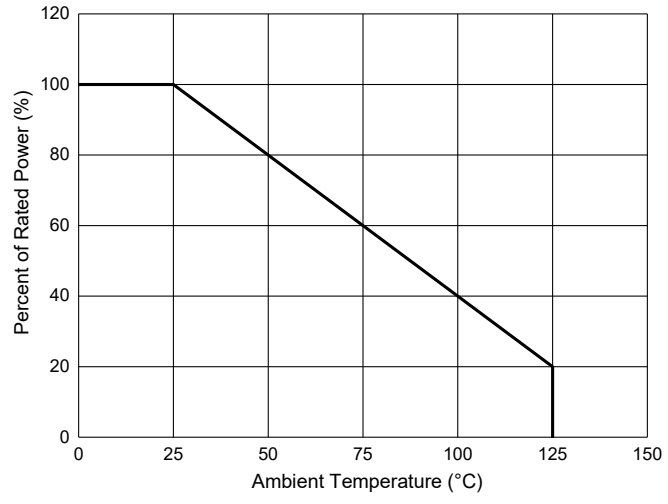
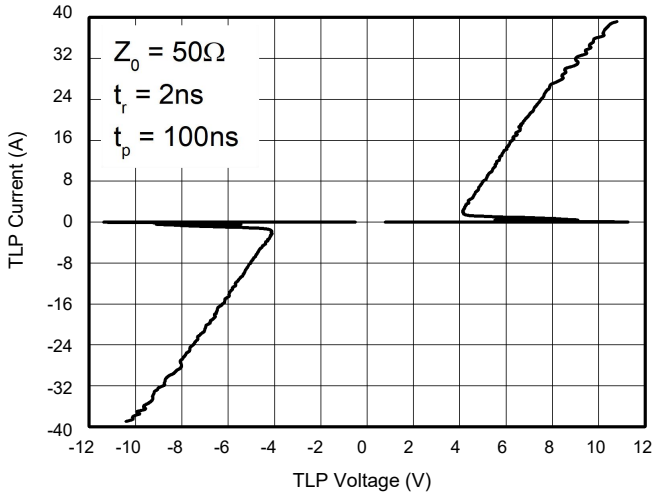


Fig. 6 - TLP Measurement



Ordering Information

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC):

ESDSBPLC3V3LB-TP