

Features

- Solid-State Silicon Technology
- Low Capacitance
- Low Leakage
- 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
ESDSBLC5V0LB	5C

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
IEC61000-4-4 (EFT) @5/50ns		40A
Peak Pulse Current(8/20µs)	I _{PP}	3.5A
Peak Pulse Power (8/20µs)	P _{PK}	41W

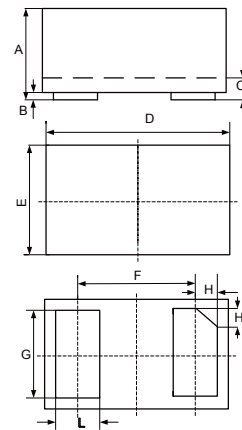
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



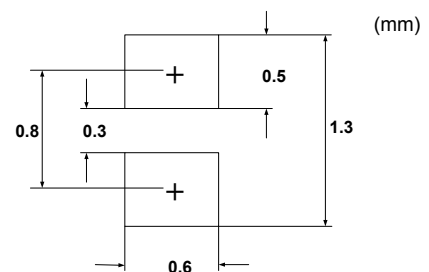
ESD Protection Device

DFN1006-2



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.016	0.022	0.40	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	0.002	0.008	0.05	0.20	
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	V
Reverse Leakage Current	I_R	$V_{RWM}=5V$			100	nA
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	5.3			V
Reverse Holding Voltage	V_{HOLD}	$I_{HOLD} = 50mA$	5.3			V
Clamping Voltage ^(Note 2)	V_C	$I_{PP}=16A, t_p=100ns$		15		V
Dynamic Resistance ^(Note 2)	R_{DYN}			0.35		Ω
Clamping Voltage ^(Note 3)	V_C	$V_{ESD}=8KV$		15		V
Clamping Voltage ^(Note 4)	V_C	$I_{PP}=1A, t_p=8/20\mu s$			8.5	V
		$I_{PP}=3.5A, t_p=8/20\mu s$			12	V
	C_J	$V_R=0V, f=1MHz$		3	4	pF

Note:

2. TLP Parameter: $Z_0=50\Omega$, $t_p=100ns$, $t_r=2ns$, 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 IEC6100-4-5.

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

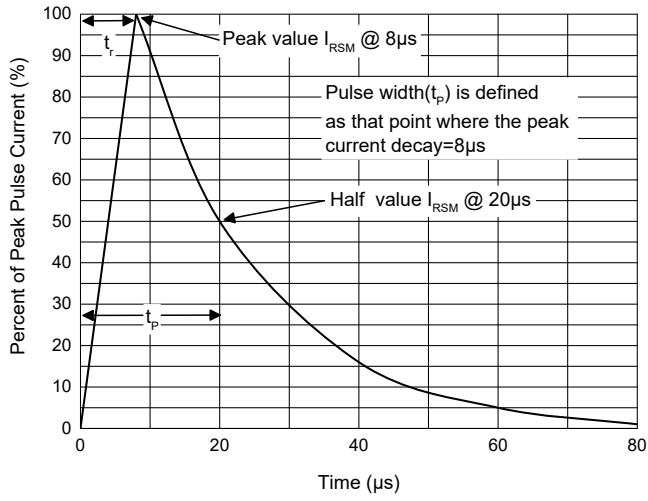


Fig. 2 - Non-Repetitive Peak Pulse Power

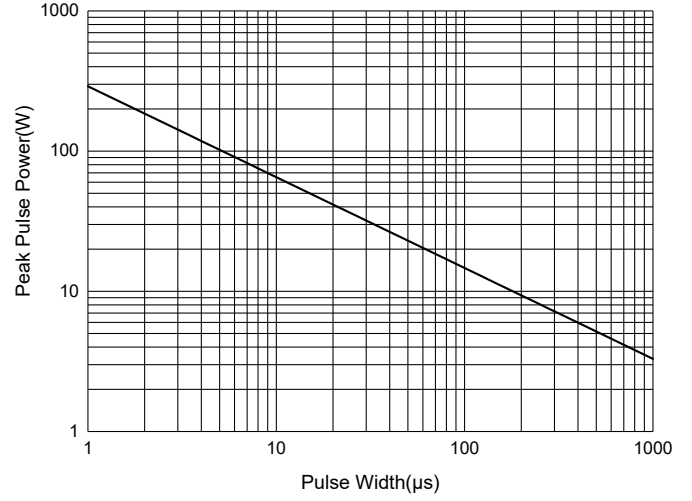


Fig. 3 - Capacitance Characteristics

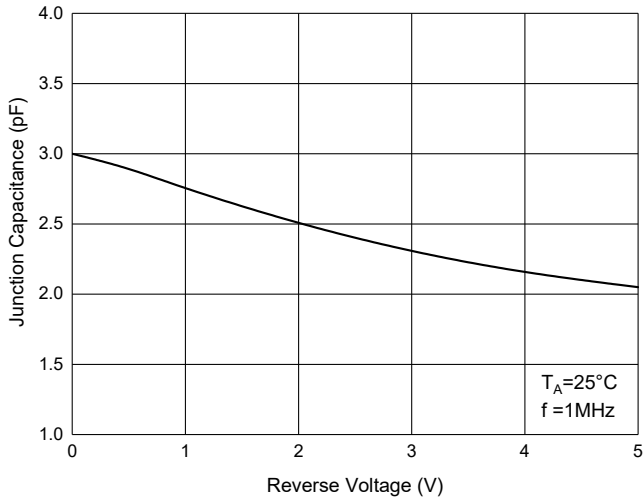


Fig. 4 - Clamping Voltage Characteristics

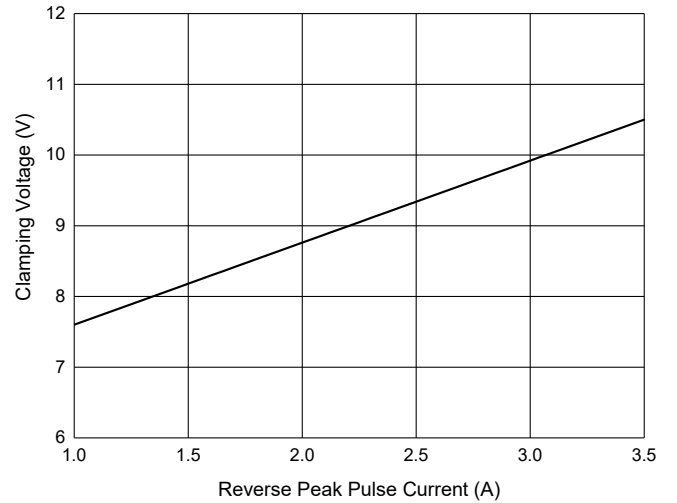


Fig. 5 - Pulse Derating Curve

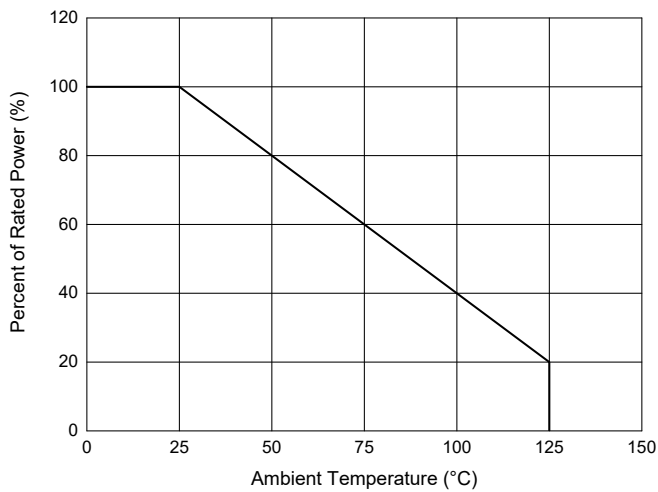
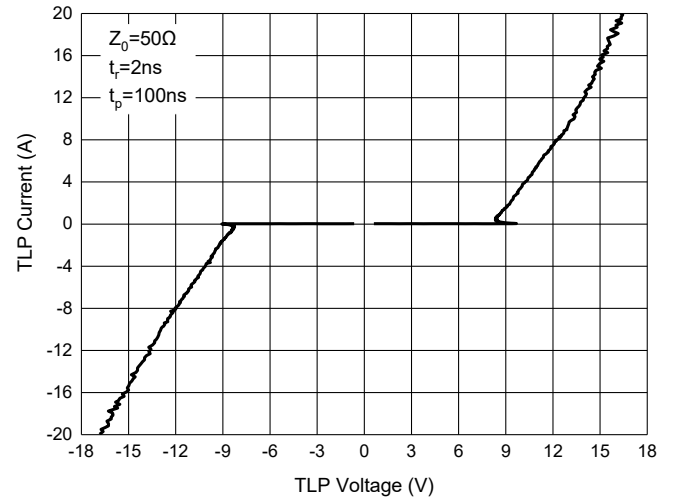


Fig. 6 - TLP Measurement



Ordering Information

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

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