

### **Features**

- · Ultra Low Capacitance
- · Ultra Low Operating Voltage
- · Low Clamping Voltage
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 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
ESDLC3V3LB	.3X

IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV	
IEC61000-4-4 (EFT) @5/50ns		40A	
Peak Pulse Power (8/20µs)	P <sub>PK</sub>	20W	

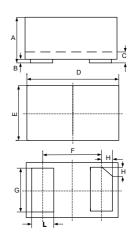
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

### **Internal Structure**



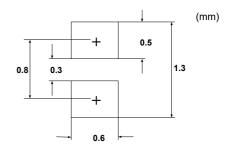
# ESD Protection Device

# DFN1006-2



DIMENSIONS						
DIM	INCHES		MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	INOTE	
Α	0.018	0.022	0.45	0.55		
В	0.000	0.002	0.00	0.05		
С	0.005	0.007	0.12	0.18		
D	0.037	0.041	0.95	1.05		
Е	0.022	0.026	0.55	0.65		
F	0.026		0.026 0.650		TYP.	
G	0.018	0.022	0.45	0.55		
Н	0.003	0.007	0.07	0.17		
L	0.008	0.012	0.20	0.30		

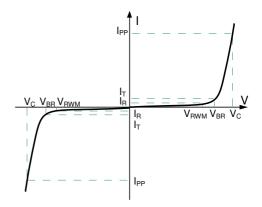
### SUGGESTED SOLDER PAD LAYOUT





# **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter		
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current		
Vc	Clamping Voltage @ IPP		
V <sub>RWM</sub>	Working Peak Reverse Voltage		
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>		
$V_{BR}$	Breakdown Voltage @ I <sub>T</sub>		
I <sub>T</sub>	Test Current		
С	Capacitance @V <sub>R</sub> =0 and f =1MHz		

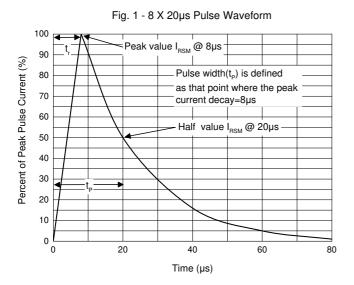


# Electrical Characteristics per line @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	I <sub>T</sub> =1mA	4.3		6.8	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =3.3V			0.1	μΑ
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>P</sub> =8/20μs			11	V
Junction Capacitance	CJ	V <sub>R</sub> = 0V, f = 1MHz		2.6	3.1	pF



### **Curve Characteristics**



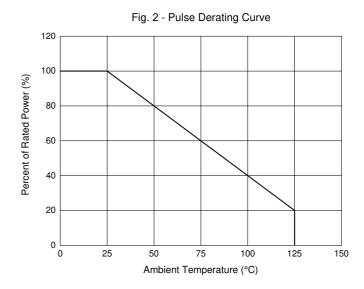
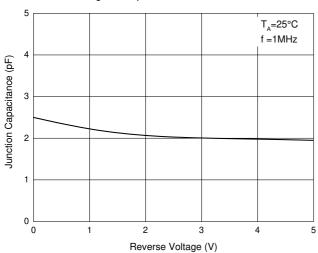


Fig. 3 - Capacitance Characteristics





# **Ordering Information**

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

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