Features

- AEC-Q101 Qualified
- Ultra Low Capacitance
- 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)

ESD Protection Device

Maximum Ratings

IEC61000-4-2 (ESD)	Air	±20KV
	Contact	±15KV
Peak Pulse Current (8/20μs)	I_{PP}	4A
Peak Pulse Power (8/20μs)(Note2)	P_{PK}	80W
Operating Junction Temperature Range	T_J	-55°C to +125°C
Storage Temperature Range	T_{STG}	-55°C to +150°C

Note :

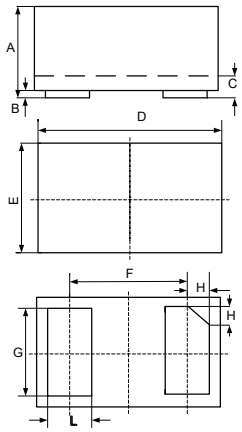
1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Internal Structure

Marking Code

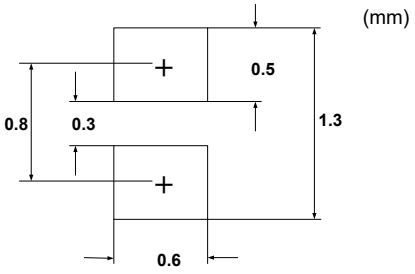
21

DFN1006-2



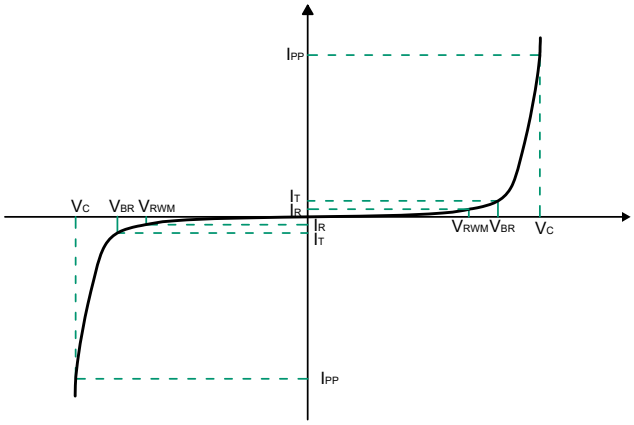
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.002	0.00	0.05	
C	0.005	0.007	0.12	0.18	
D	0.037	0.041	0.95	1.05	
E	0.022	0.026	0.55	0.65	
F	0.026		0.650		TYP.
G	0.018	0.022	0.45	0.55	
H	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ VRWM
V_{BR}	Breakdown Voltage @ IT
IT	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ IPP
P_{PK}	Peak Pulse Power
C_J	Junction Capacitance



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6	8	9	V
Reverse Leakage Current	I_R	V_{RWM}=5V			0.5	uA
Clamping Voltage[Note1]	V_C	I_{PP}=1A, t_P=8/20μs			12	V
Clamping Voltage[Note1]	V_C	I_{PP}=4A, t_P=8/20μs		18	20	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		0.35	0.5	pF
Dynamic Resistance [Note2]	R_{DYN}	TLP, t_P=100ns		1.7		Ω

Note:
1. Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5.
2. TLP parameter: $_0$=50Ω, t_p=100ns, t_r=2ns, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

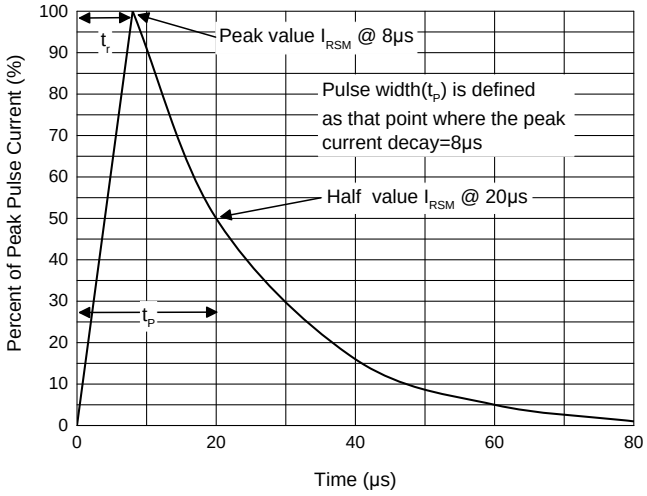


Fig. 2 - Pulse Derating Curve

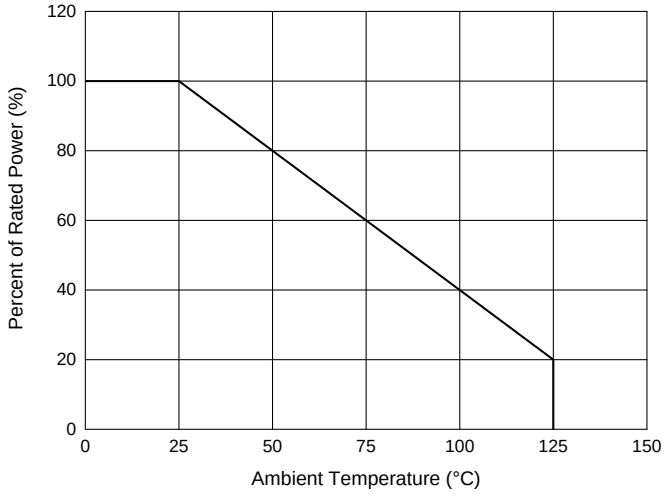


Fig. 3 - Capacitance Characteristics

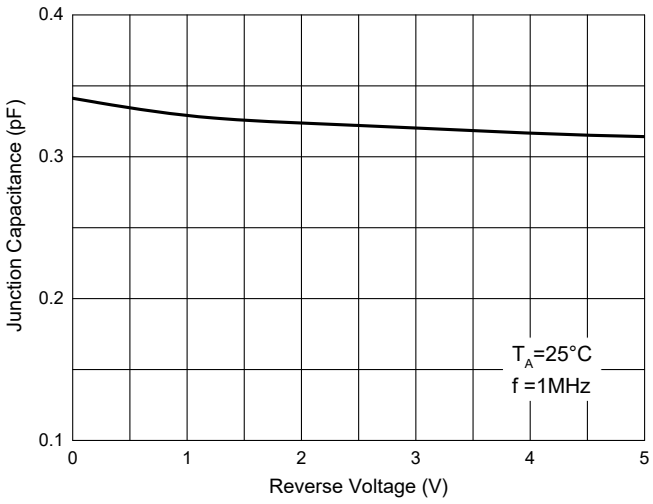


Fig. 4 - Clamping Voltage Characteristics

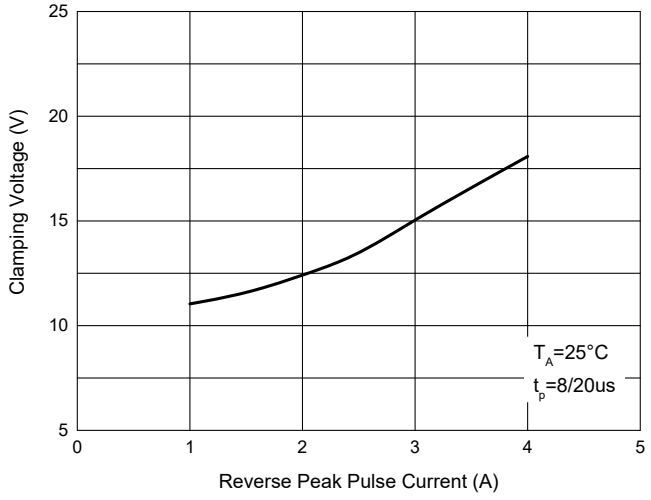
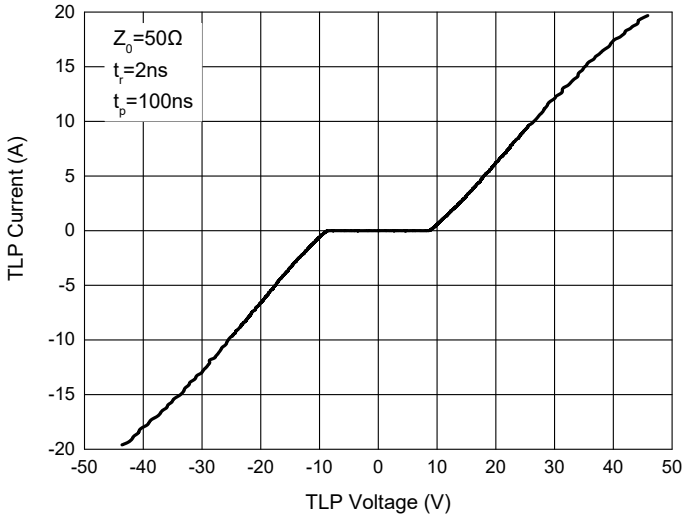


Fig. 5 - TLP Measurement



Ordering Information

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