Features

- Low Clamping Voltage
- Low Leakage Current
- 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)

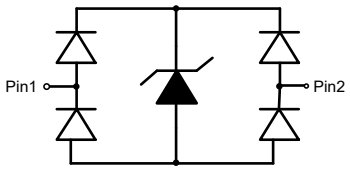
Snap Back ESD Protection Device

Maximum Ratings

IEC61000-4-2(ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Power (8/20μs)	P_{PK}	210W
Peak Pulse Current (8/20μs)(Note 2)	I_{PP}	15A
Operating Junction Temperature Range	T_J	-40°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.

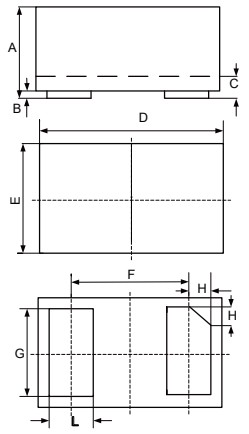
Internal Structure



Marking Code

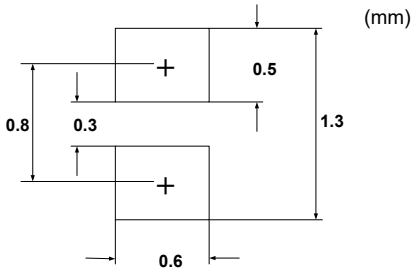


DFN1006-2



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}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6	8		V
Reverse Leakage Current	I_R	V_{RWM}=5V			50	nA
Clamping Voltage[Note1]	V_C	I_{PP}=16A, t_P=100ns		12		V
Clamping Voltage[Note2]	V_C	I_{PP}=1A, t_P=8/20μs		7.5	10	V
Clamping Voltage[Note2]	V_C	I_{PP}=15A, t_P=8/20μs		9.2	14	V
Junction Capacitance	C_J	V_R=0V, f=1MHz		1.35	1.55	pF
Dynamic Resistance [Note1]	R_{DYN}	TLP, t_P=100ns		0.3		Ω

Note:
1. TLP parameter: Z_0=50Ω, t_p=100ns, t_r=2ns, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A
2. Non-repetitive current pulse 8/20Õs exponential decay waveform according to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

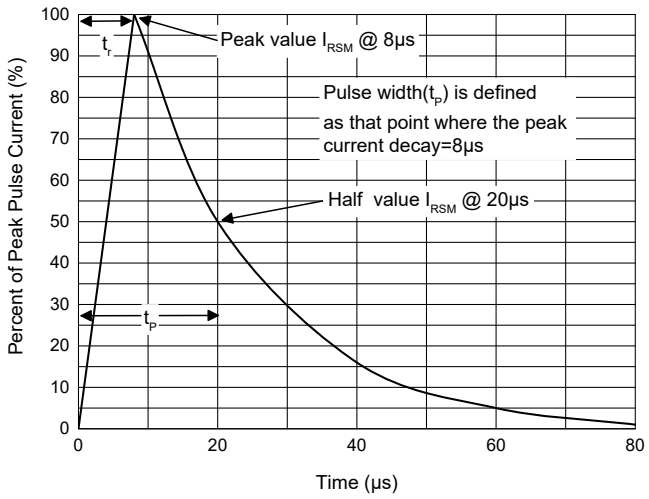


Fig. 2 - Non-Repetitive Peak Pulse Power

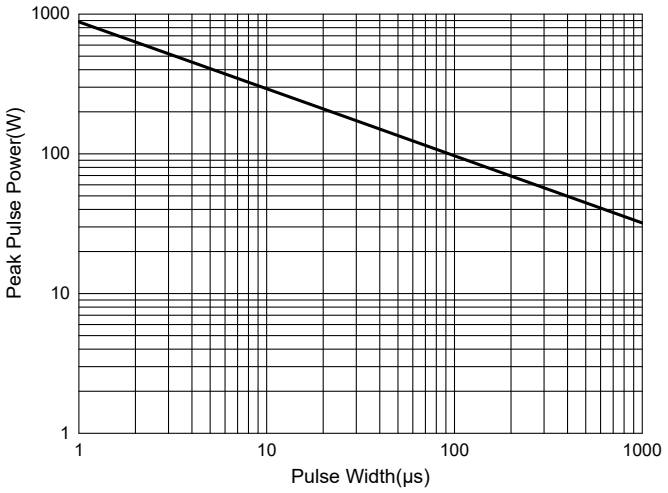


Fig. 3 - Capacitance Characteristics

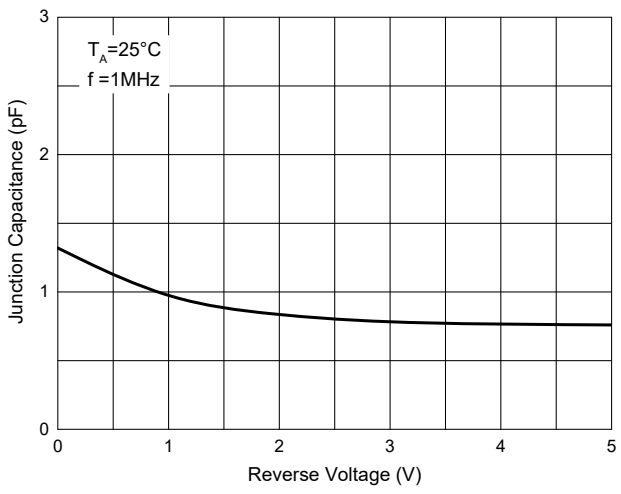


Fig. 4 - Clamping Voltage Characteristics

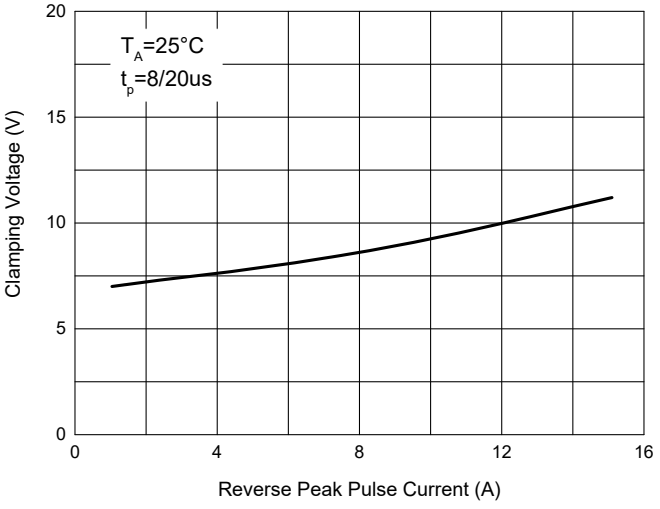


Fig. 5 - TLP Measurement

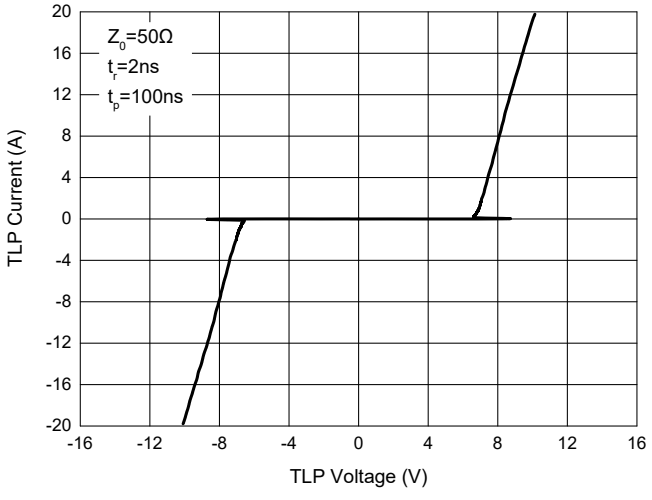
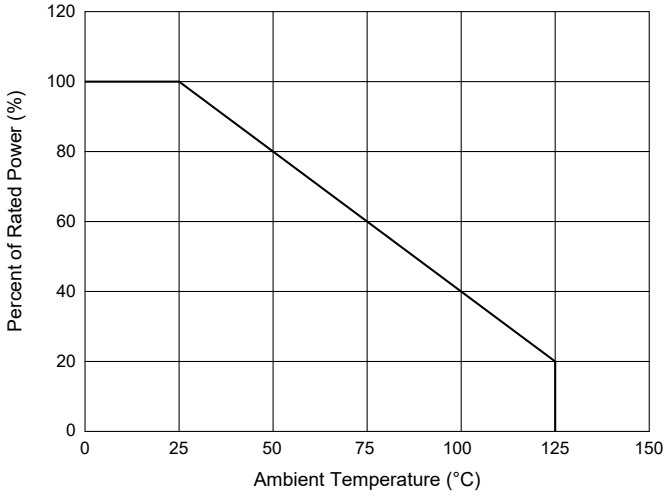


Fig. 6 - Pulse Derating Curve



Ordering Information

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

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