

Features

- Uni-Directional ESD Protection of One Line
- Low Leakage Current
- Low Clamping Voltage
- Moisture Sensitivity Level1
- 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

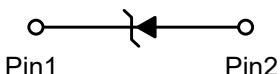
IEC61000-4-2 (ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Current (8/20μs)	I _{PP}	90A
Peak Pulse Power (8/20μs) ^(Note2)	P _{PK}	1350W
Operating Junction Temperature Range	T _J	-55°C to +125°C
Storage Temperature Range	T _{STG}	-55°C to +150°C

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 μ s exponential decay waveform according to IEC61000-4-5.

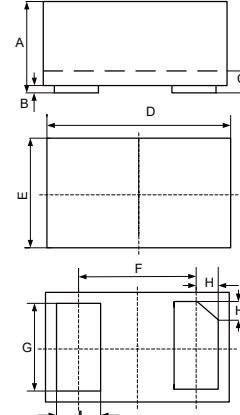
Internal Structure



Marking Code



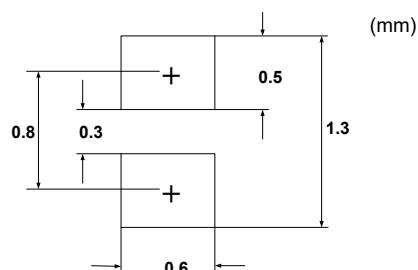
ESD Protection Device



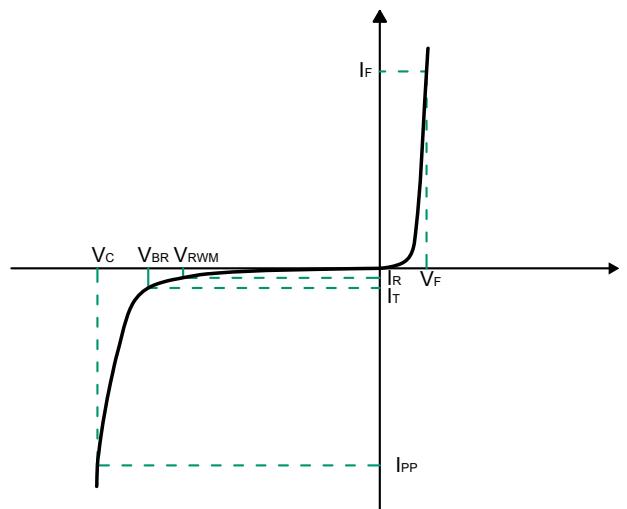
DIMENSIONS

DIM	INCHES		MM		NOTE
	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	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

SUGGESTED SOLDER PAD LAYOUT



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



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

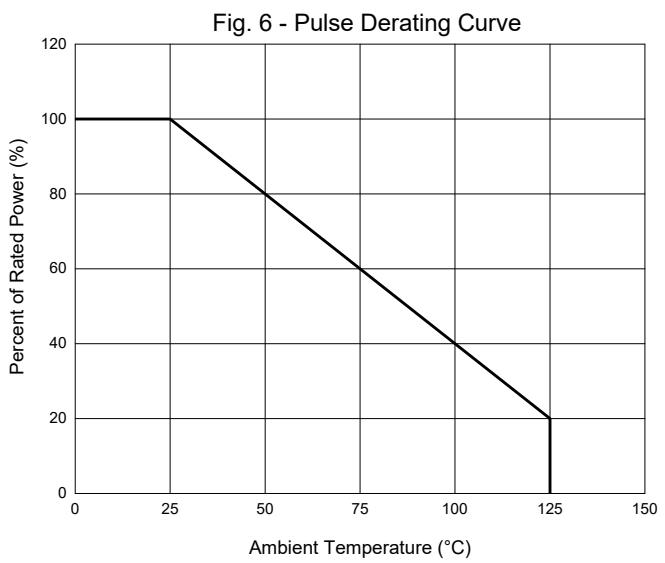
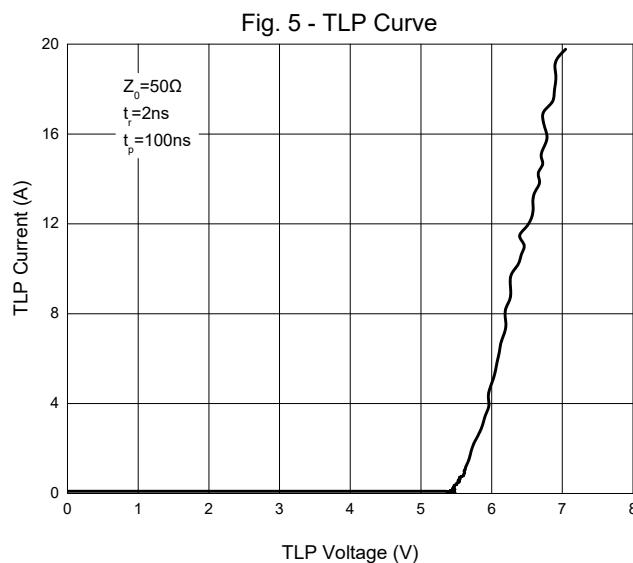
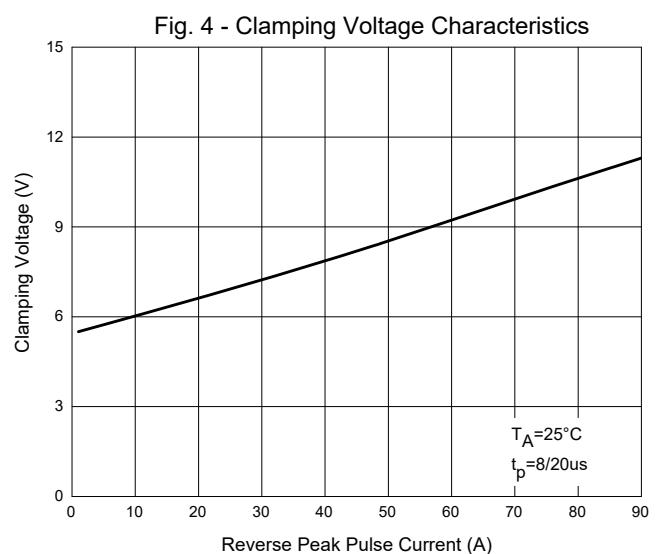
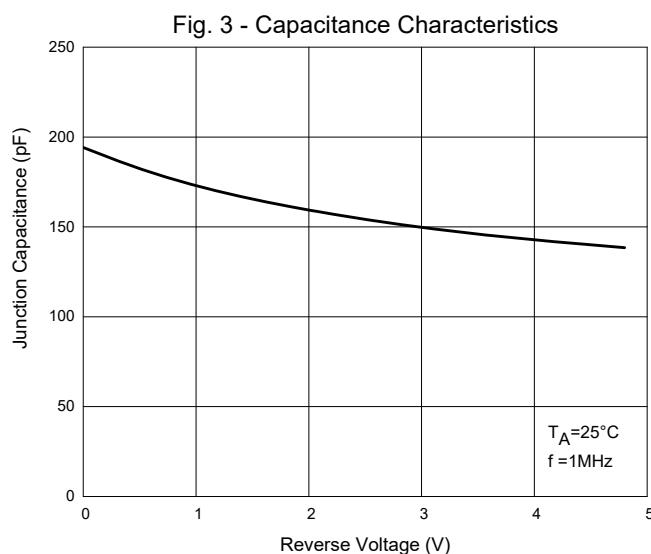
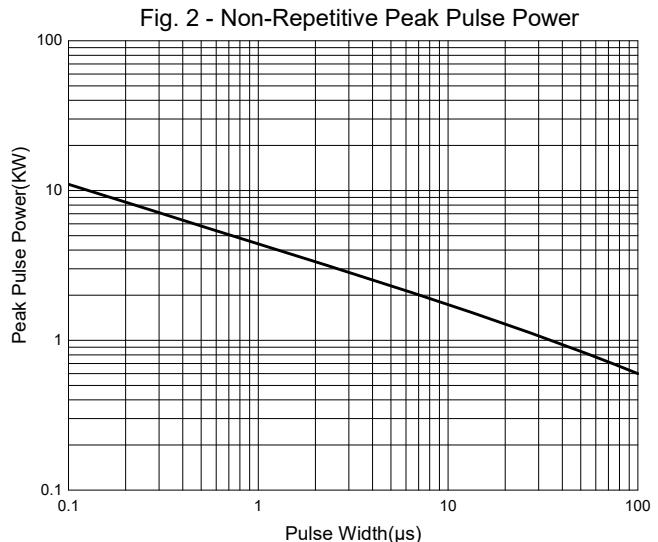
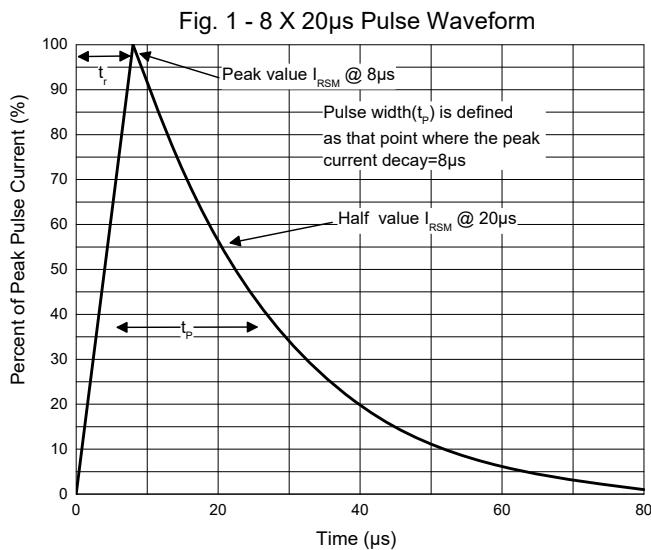
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				4.8	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	5			V
Reverse Leakage Current	I_R	$V_{RWM}=4.8\text{V}$			0.5	μA
Forward Voltage	V_F	$I_F=10\text{mA}$			1.2	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$			7	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=90\text{A}, t_p=8/20\mu\text{s}$			15	V
Junction Capacitance	C_J	$V_R=1.65\text{V}, f=1\text{MHz}$	200			pF
Dynamic Resistance ^{Note2}	R_{DYN}	TLP, $t_p=100\text{ns}$		0.07		Ω

Note :

1. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

2. TLP parameter: $Z_0=50\Omega$, $t_p=100\text{ns}$, $t_r=2\text{ns}$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.

Curve Characteristics



Ordering Information

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

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