

Features

- Bi-Directional ESD Protection of One Line
- Low Capacitance
- Low Clamping Voltage
- Moisture Sensitivity Level 1
- 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}	10A
Peak Pulse Power (8/20µs) ^(Note2)	P _{PK}	242W
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

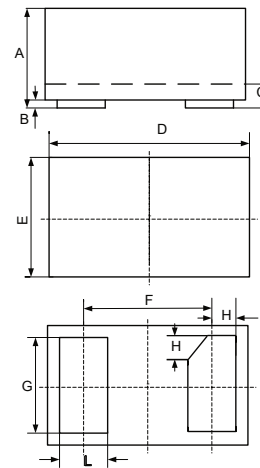


Marking Code



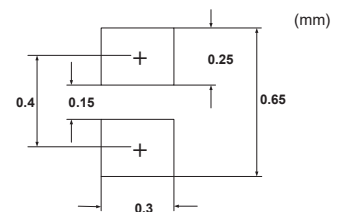
**Snap Back
ESD Protection
Device**

0201-A

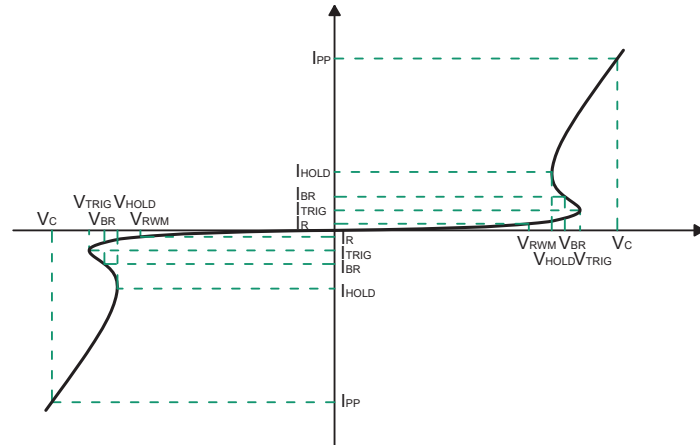


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.009	0.013	0.23	0.33	
B	0.000	0.002	0.00	0.05	
C	0.005	0.007	0.12	0.18	
D	0.022	0.026	0.55	0.65	
E	0.010	0.014	0.25	0.35	
F	0.014		0.355		TYP.
G	0.008	0.011	0.22	0.28	
H	0.003		0.079		TYP.
L	0.006	0.009	0.16	0.22	

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_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{TRIG}	Reverse Trigger Voltage
I_{TRIG}	Reverse Trigger Current
V_{HOLD}	Reverse Holding Voltage
I_{HOLD}	Reverse Holding Current
C_J	Junction Capacitance



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				±12	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	13			V
Reverse Leakage Current	I_R	$V_{RWM}=12V$			0.1	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP}=1A, t_p=8/20\mu s$		12.8	14	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=6A, t_p=8/20\mu s$		15	18	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=10A, t_p=8/20\mu s$		17.2	22	V
Clamping Voltage ^{Note2}	V_C	$I_{PP}=16A, t_p=100ns$		19.6		V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		10	13	pF
Junction Capacitance	C_J	$V_R=2.5V, f=1MHz$		9	11	pF
Dynamic Resistance ^{Note2}	R_{DYN}	TLP, $t_p=100ns$		0.39		Ω

Note :

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

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.

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

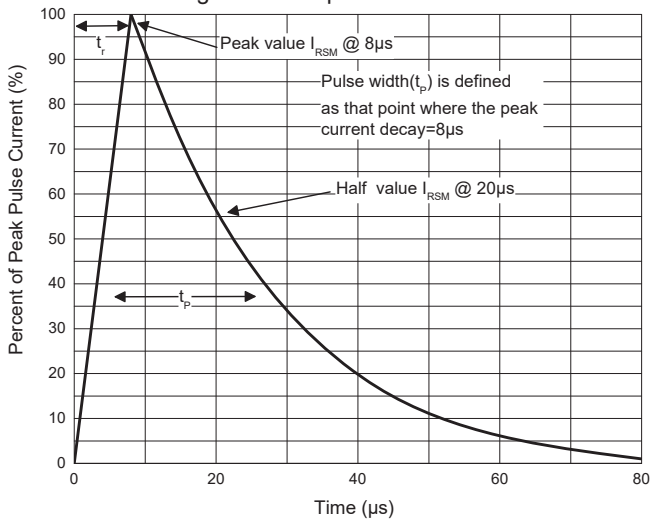


Fig. 2 - Non-Repetitive Peak Pulse Power

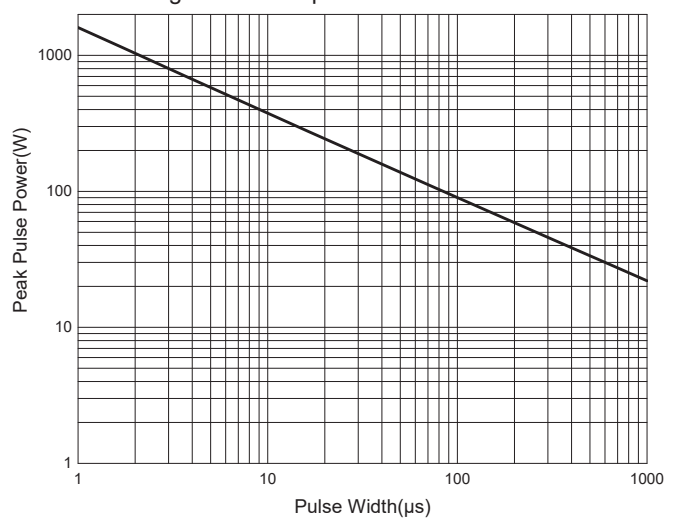


Fig. 3 - Capacitance Characteristics

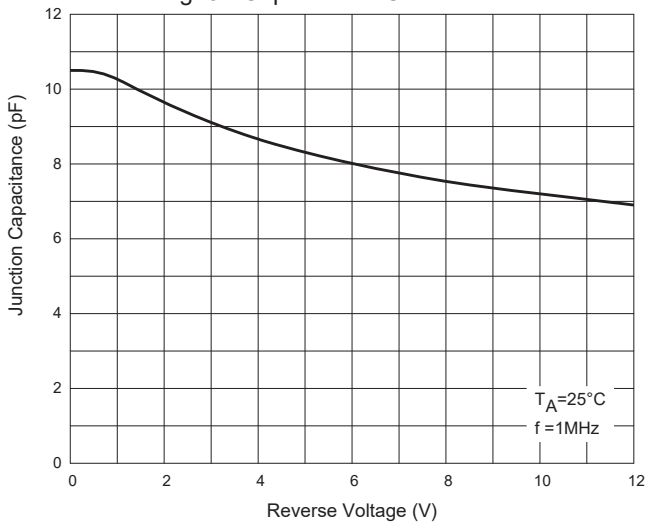


Fig. 4 - Clamping Voltage Characteristics

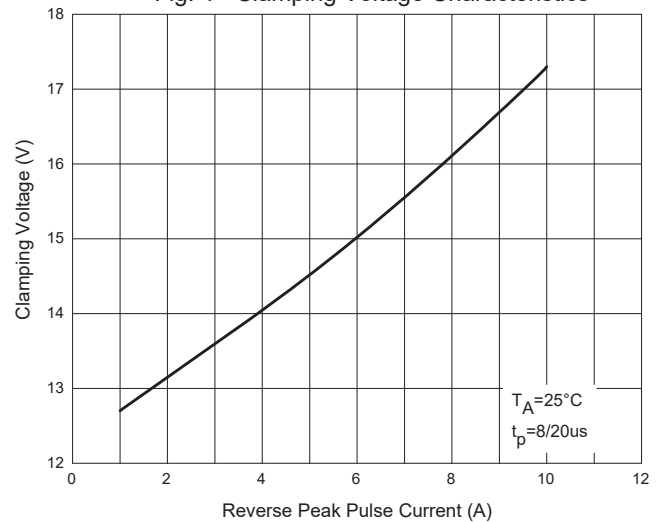


Fig. 5 - TLP Curve

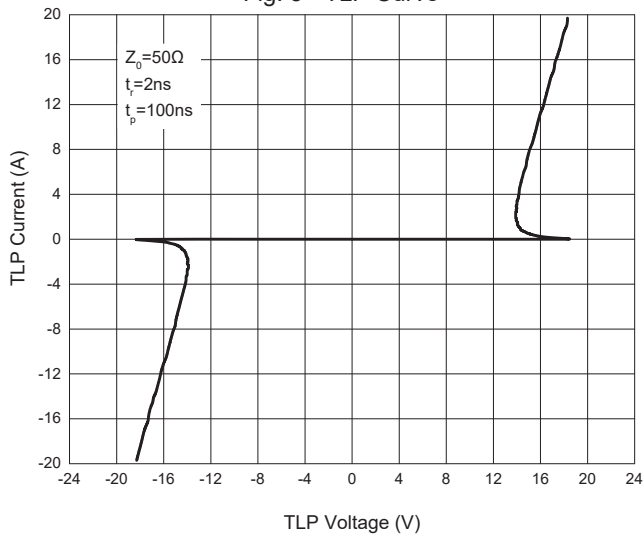
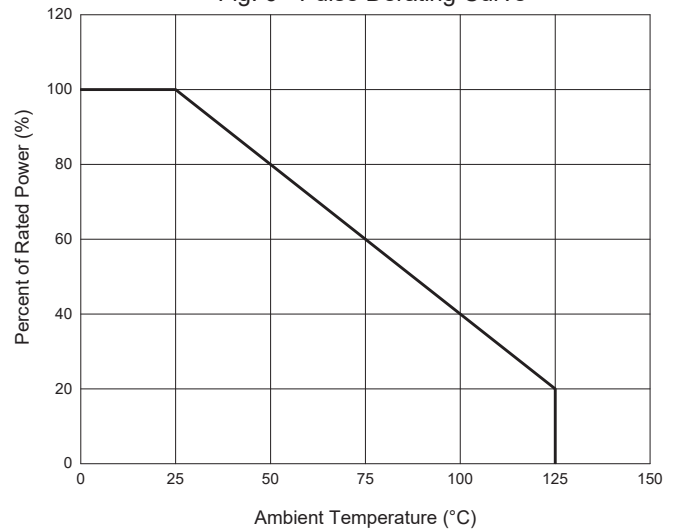


Fig. 6 - Pulse Derating Curve



Ordering Information

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

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