

Features

- ESD Protection Of Up To Four Lines
- Ultra 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)

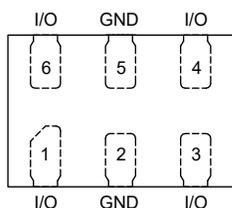
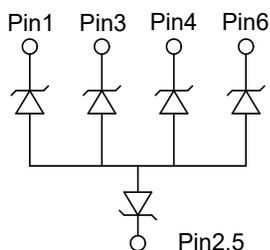
Maximum Ratings

IEC61000-4-2 (ESD)	Air	±25KV
	Contact	±25KV
Peak Pulse Current (8/20µs)	I _{PP}	2A
Peak Pulse Power (8/20µs) ^(Note2)	P _{PK}	24W
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

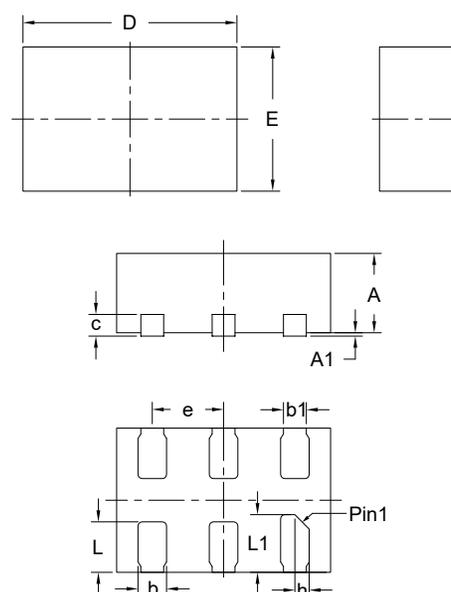


Marking Code



ESD Protection Device

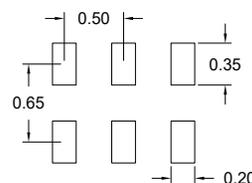
DFN1510-6A



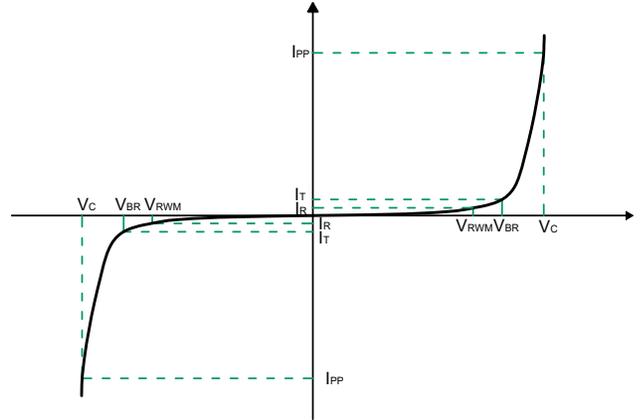
	DIMENSIONS				NOTE
	INCH		MM		
	MIN	MAX	MIN	MAX	
A	0.020	0.024	0.5	0.6	
A1	0.000	0.002	0.01	0.05	
b	0.006	0.010	0.15	0.25	
c	0.006		0.15		TYP
D	0.055	0.063	1.4	1.6	
e	0.020		0.5		TYP
E	0.035	0.043	0.9	1.1	
L	0.012	0.016	0.3	0.4	
L1	0.014	0.018	0.35	0.45	
h	0.002	0.006	0.05	0.15	

SUGGESTED SOLDER PAD LAYOUT

(mm)



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



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			V
Reverse Leakage Current	I_R	$V_{RWM}=5V$			0.2	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP}=1A, t_p=8/20\mu s$			10	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=2A, t_p=8/20\mu s$			12	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		9		pF
Dynamic Resistance ^{Note2}	R_{DYN}	TLP, $t_p=100ns$		0.5		Ω

Note :

- 1.Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.
- 2.TLP parameter: $Z_0=50\Omega, t_p=100ns, t_r=2ns$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.
- 3.All measured from Pin1,3,4 or 6 toPin2 or 5.

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

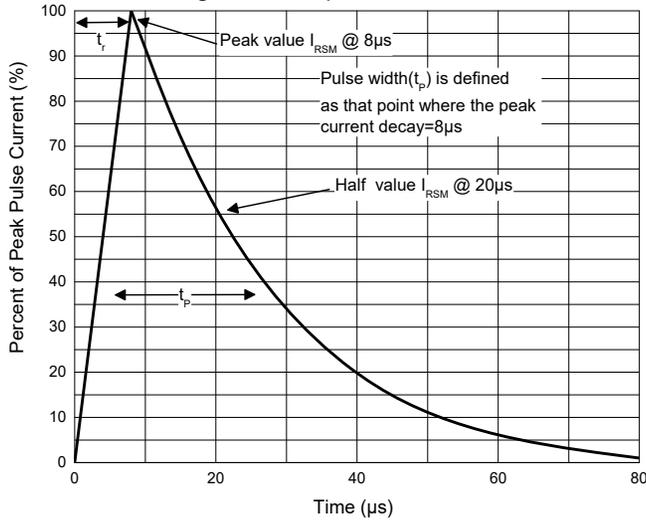


Fig. 2 - Non-Repetitive Peak Pulse Power



Fig. 3 - Capacitance Characteristics

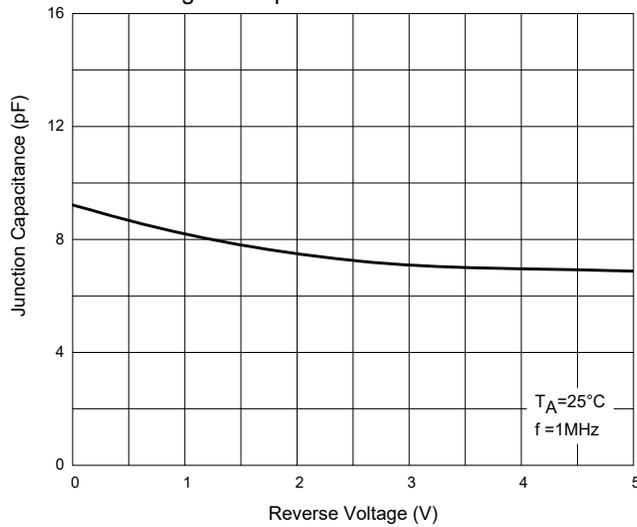


Fig. 4 - Clamping Voltage Characteristics

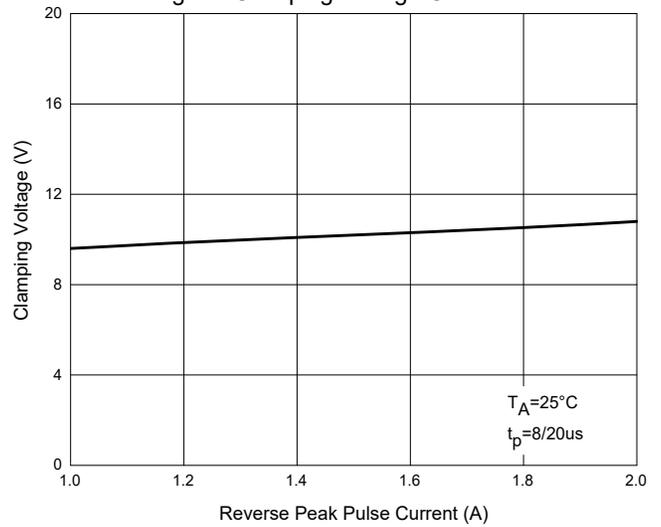


Fig. 5 - TLP Curve

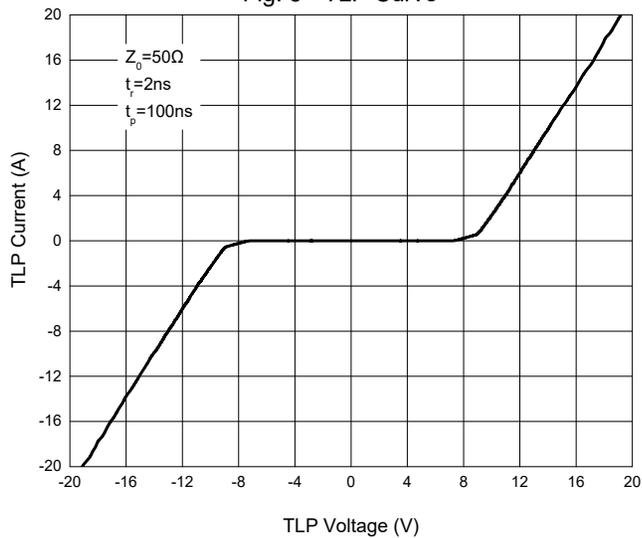
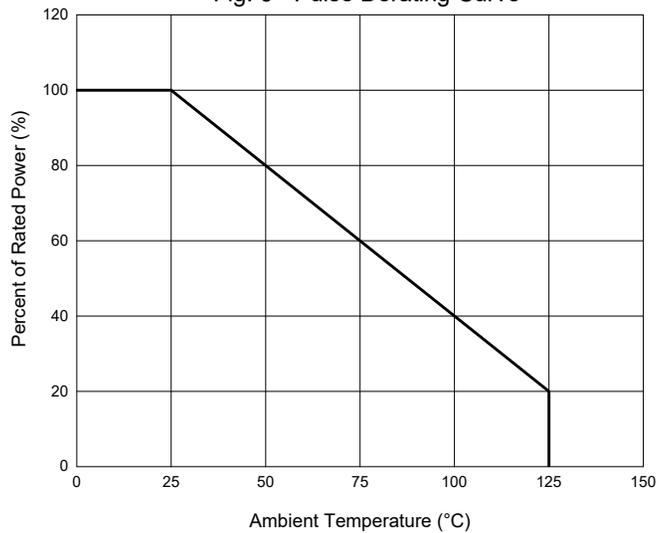


Fig. 6 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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