

## 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)

## Maximum Ratings

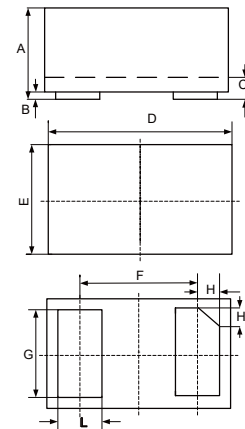
IEC61000-4-2(ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Power (8/20µs)	PPK	860W
Peak Pulse Current (8/20µs)(Note 2)	I <sub>PP</sub>	75A
Operating Junction Temperature Range	T <sub>J</sub>	-40°C to +125°C
Storage Temperature Range	T <sub>STG</sub>	-55°C to +150°C

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.

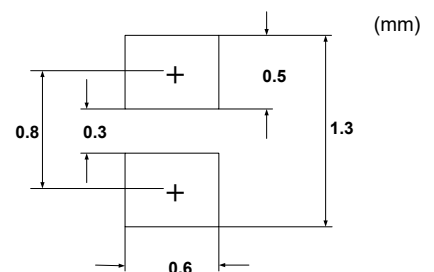
# Snap Back ESD Protection Device

## DFN1006-2

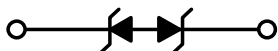


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.002	0.00	0.05	
C	0.005	0.007	0.12	0.18	
D	0.037	0.041	0.95	1.05	
E	0.022	0.026	0.55	0.65	
F	0.026		0.650		TYP.
G	0.018	0.022	0.45	0.55	
H	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

### SUGGESTED SOLDER PAD LAYOUT



### Internal Structure



### Marking Code



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	5.3	6.0		V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V$			1	$\mu A$
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=16A, t_p=100ns$		6.5		V
Clamping Voltage <sup>Note2</sup>	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$		6.2	7	V
Clamping Voltage <sup>Note2</sup>	$V_C$	$I_{PP}=40A, t_p=8/20\mu s$		7.5	9	V
Clamping Voltage <sup>Note2</sup>	$V_C$	$I_{PP}=75A, t_p=8/20\mu s$		9.5	11.5	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		180	230	pF
Dynamic Resistance <sup>Note1</sup>	$R_{DYN}$	TLP, $t_p=100ns$		0.01		$\Omega$

Note:

FETLP 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

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## Curve Characteristics

Fig. 1 - 8 X 20 $\mu$ s Pulse Waveform

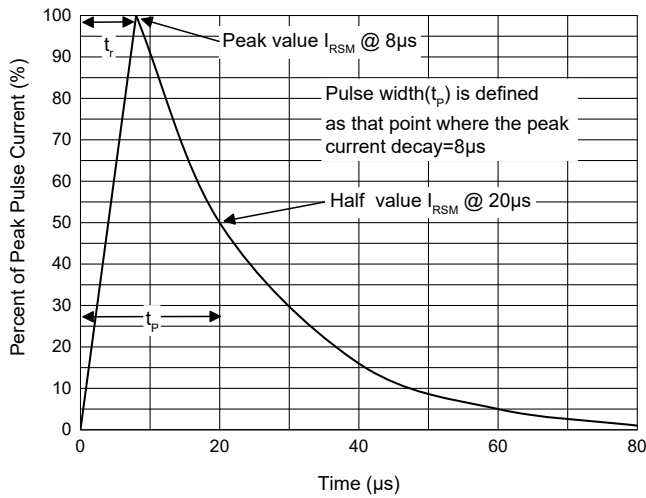


Fig. 2 - Non-Repetitive Peak Pulse Power

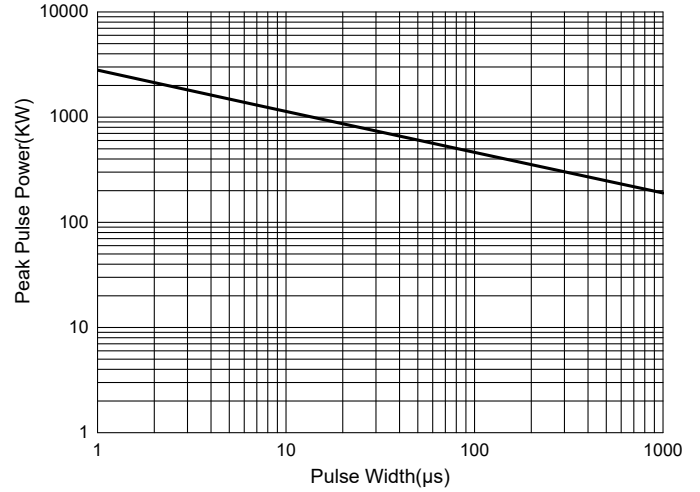


Fig. 3 - Capacitance Characteristics

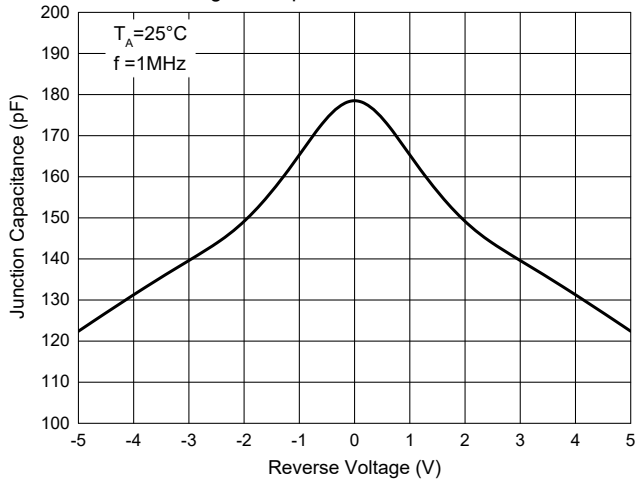


Fig. 4 - Clamping Voltage Characteristics

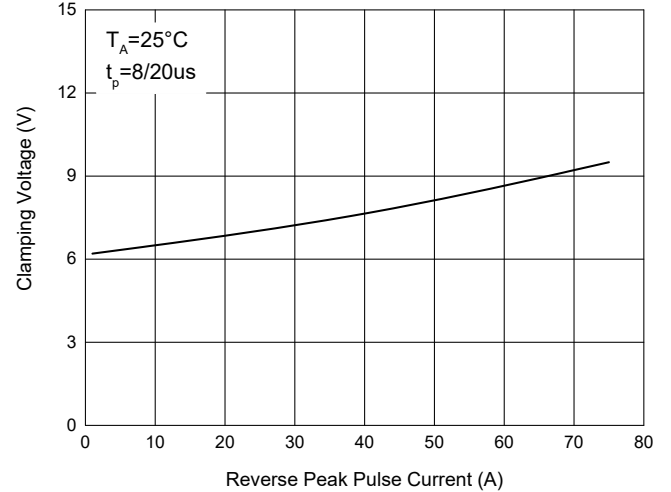


Fig. 5 - TLP Measurement

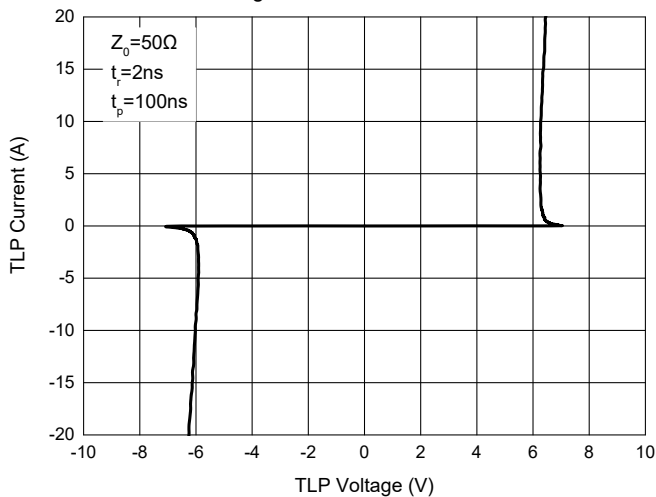
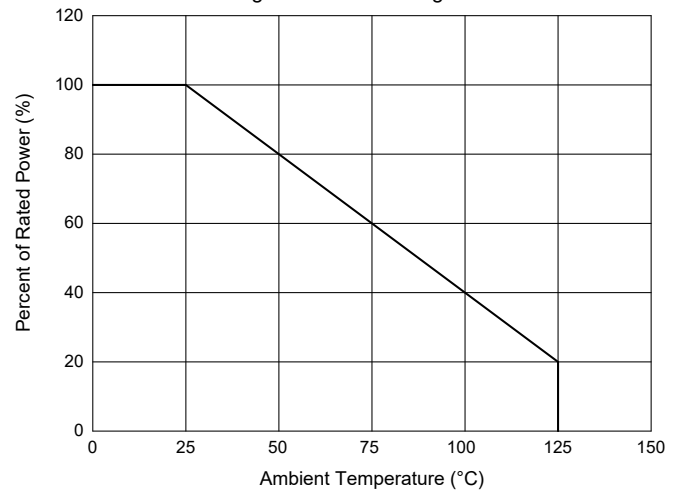


Fig. 6 - Pulse Derating Curve



## Ordering Information

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

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