

## Features

- Low Capacitance
- Low Leakege Current
- 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)

# ESD Protection Device

## Maximum Ratings

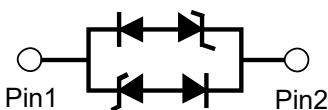
IEC61000-4-2 (ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Current (8/20μs)	I <sub>PP</sub>	25A
Peak Pulse Power (8/20μs) <sup>(Note2)</sup>	P <sub>PK</sub>	400W
Operating Junction Temperature Range	T <sub>J</sub>	-55°C to +125°C
Storage Temperature Range	T <sub>STG</sub>	-55°C to +150°C

**Note :**

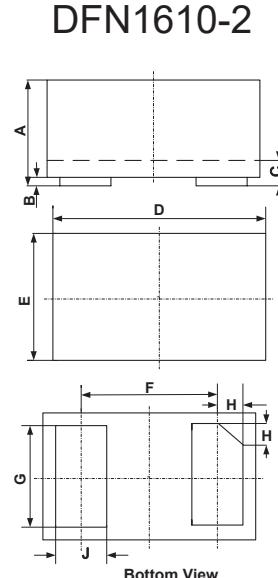
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. Non-repetitive current pulse 8/20  $\mu$ s exponential decay waveform according to IEC61000-4-5.

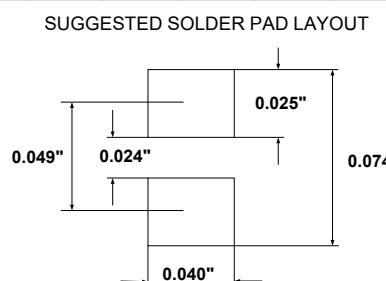
## Internal Structure



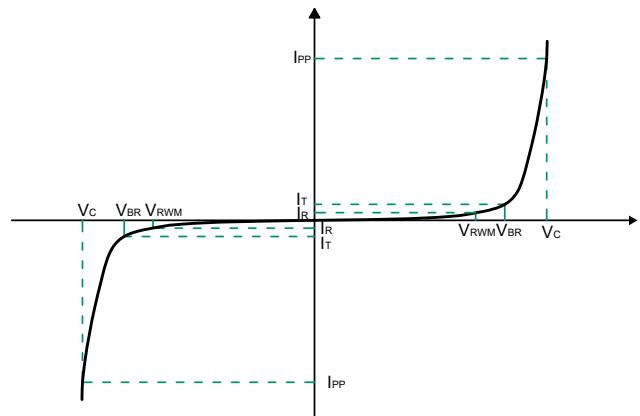
## Marking Code



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	0.004	0.008	0.10	0.20	
D	0.062	0.066	1.55	1.65	
E	0.038	0.042	0.95	1.05	
F	0.044		1.10		TYP.
G	0.030	0.034	0.75	0.85	
H	0.006	0.010	0.15	0.25	
I	0.014	0.018	0.35	0.45	



Symbol	Parameter
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ VRWM
$V_{BR}$	Breakdown Voltage @ IT
IT	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ IPP
$P_{PK}$	Peak Pulse Power
$C_J$	Junction Capacitance



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

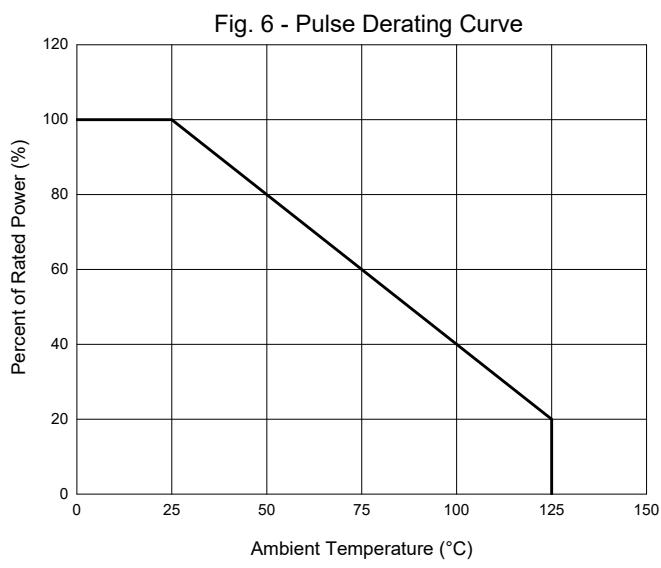
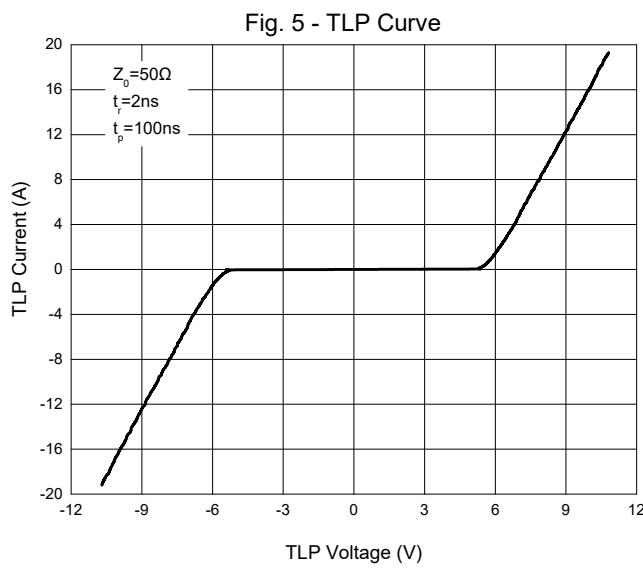
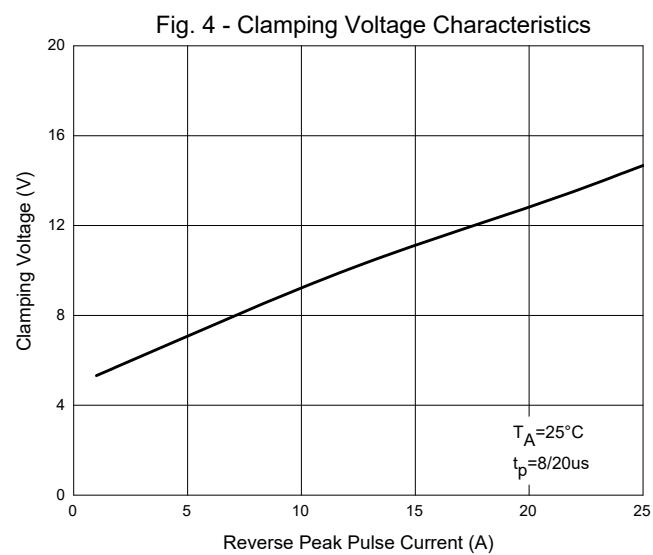
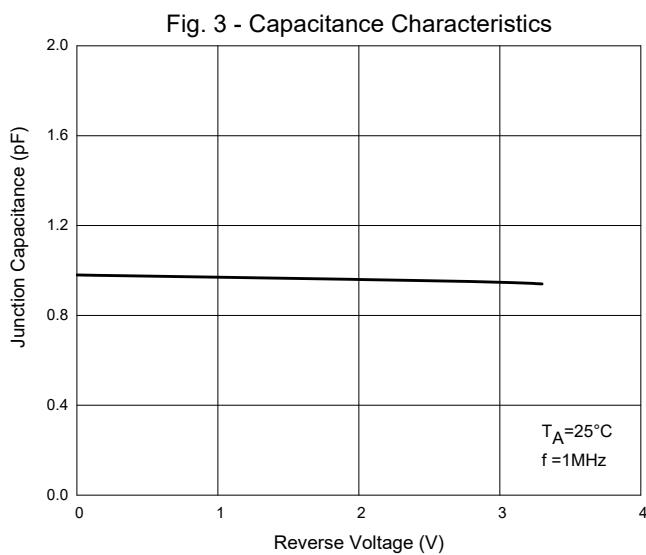
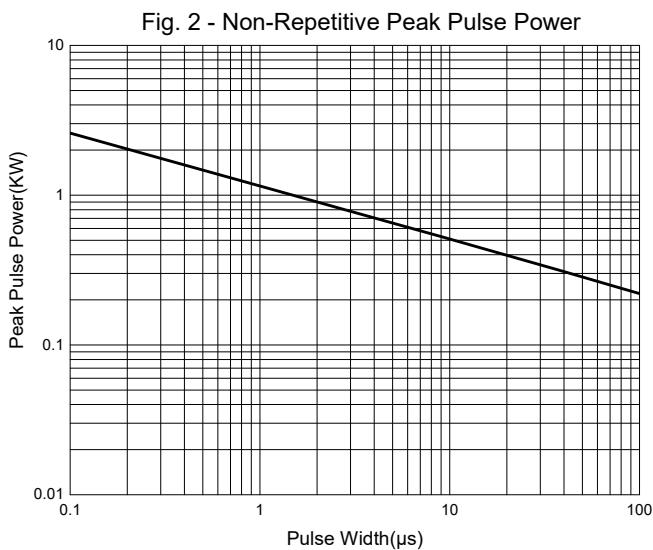
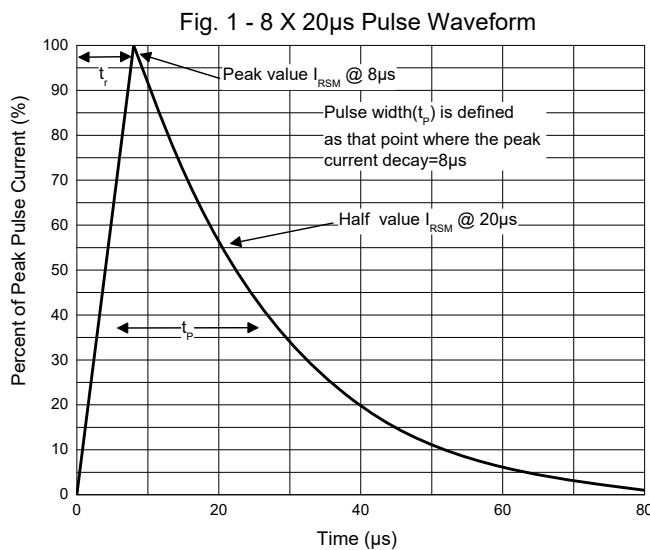
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	3.8			V
Reverse Leakage Current	$I_R$	$V_{RWM}=3.3\text{V}$			0.2	$\mu\text{A}$
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$			6	V
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=25\text{A}, t_p=8/20\mu\text{s}$			16	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$		1	1.5	$\text{pF}$
Dynamic Resistance <sup>Note2</sup>	$R_{DYN}$	TLP, $t_p=100\text{ns}$		0.27		$\Omega$

Note :

1. Non-repetitive current pulse 8/20 $\mu\text{s}$  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: 3Kpcs/Reel

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