

## Features

- Low Clamping Voltage
- Low Leakage Current
- 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)

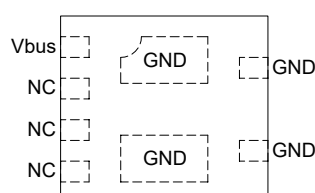
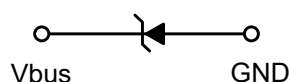
## Maximum Ratings

IEC61000-4-2 (ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Current (8/20μs)	I <sub>PP</sub>	100A
Peak Pulse Power (8/20μs) <sup>(Note2)</sup>	P <sub>PK</sub>	3400W
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

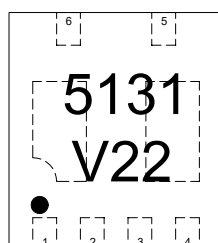
Note :

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 μs exponential decay waveform according to IEC61000-4-5.

## Internal Structure

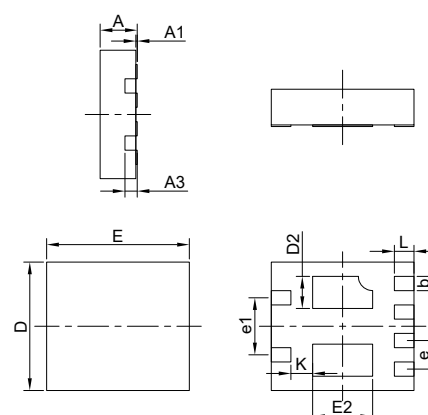


## Marking Code



# ESD Protection Device

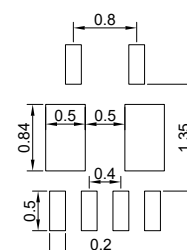
## DFN2018-6L



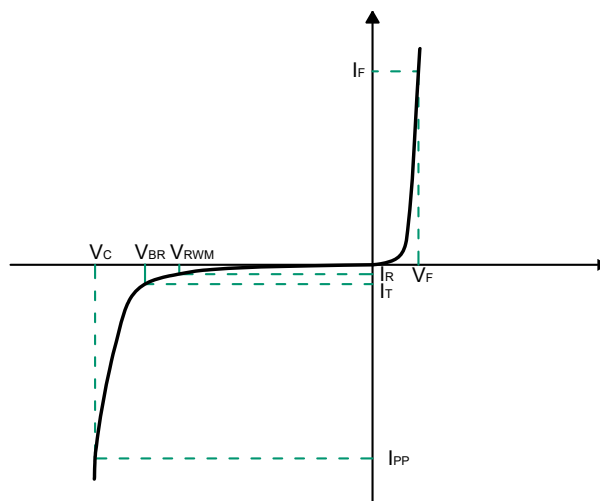
DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.450	0.550	
A1	0.000	0.002	0.000	0.050	
A3	0.006		0.152		TYP
b	0.006	0.010	0.150	0.250	
D	0.067	0.075	1.700	1.900	
D2	0.014	0.022	0.350	0.550	
E	0.075	0.083	1.900	2.100	
E2	0.029	0.037	0.740	0.940	
e	0.012	0.020	0.300	0.500	
e1	0.028	0.035	0.700	0.900	
e2	0.033	0.041	0.850	1.050	
K	0.008	-	0.200	-	
L	0.008	0.016	0.200	0.400	
R	0.008		0.200		TYP

## SUGGESTED SOLDER PAD LAYOUT

Unit: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
$I_F$	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	$V_{RWM}$				22	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	24		26	V
Reverse Leakage Current	$I_R$	$V_{RWM}=22V$			1.0	$\mu A$
Forward Voltage	$V_C$	$I_F=20mA$			1.5	V
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=50A, t_p=8/20\mu s$			30	V
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=100A, t_p=8/20\mu s$			35	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		800	850	pF

Note :

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

## Curve Characteristics

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

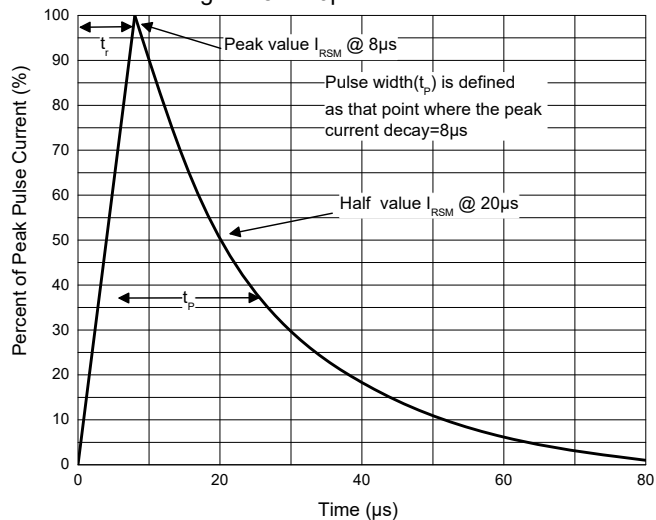


Fig. 2 - Non-Repetitive Peak Pulse Power

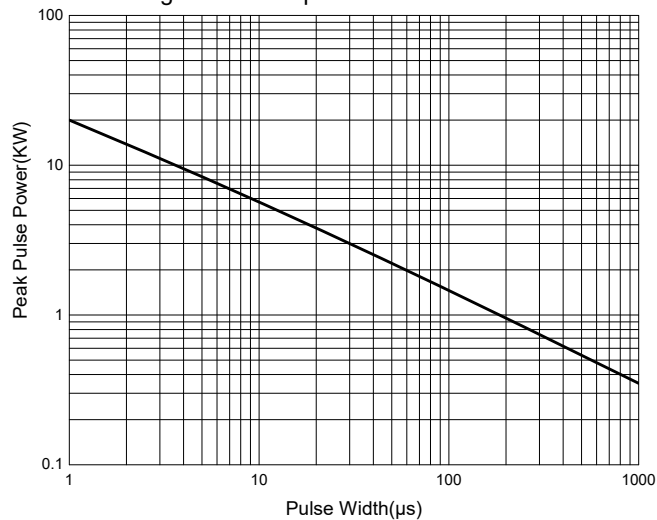


Fig. 3 - Capacitance Characteristics

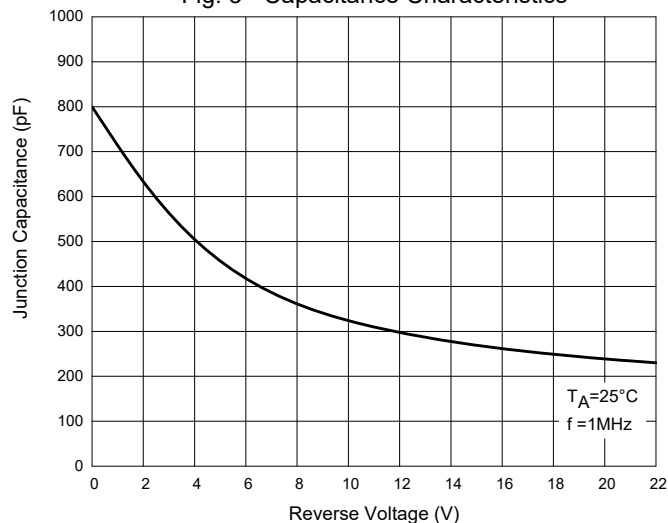


Fig. 4 - Clamping Voltage Characteristics

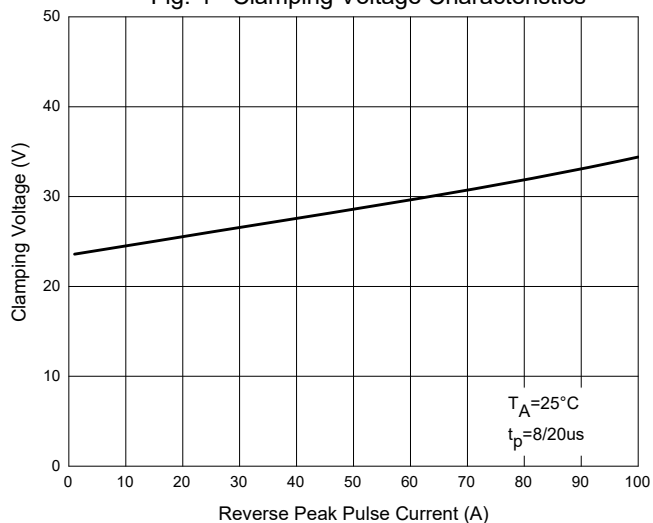


Fig. 5 - TLP Curve

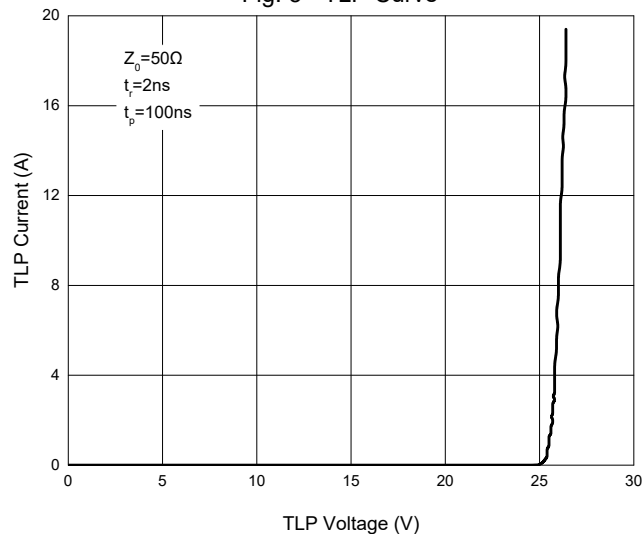
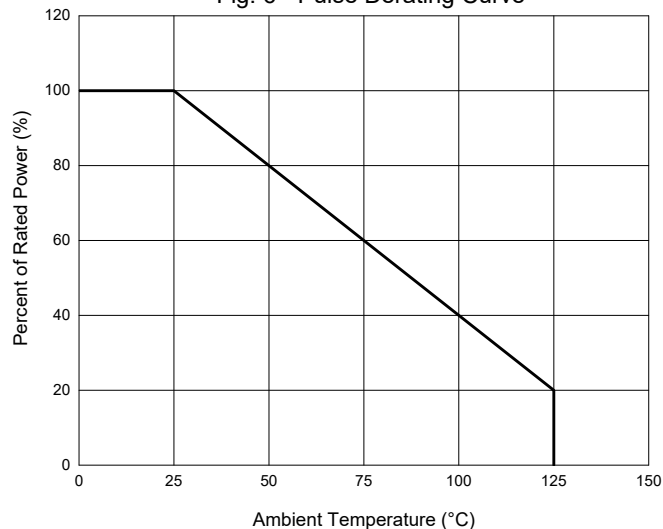


Fig. 6 - Pulse Derating Curve



## Ordering Information

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

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