

Features

- Low Leakage Current
- Low Clamping Voltage
- Ultra Low Capacitance
- 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)

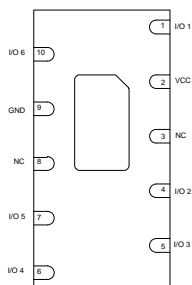
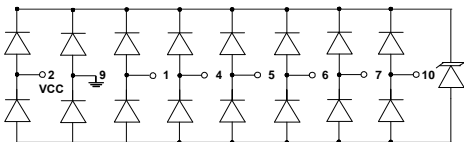
Maximum Ratings

IEC61000-4-2 (ESD)	Air	±25KV
	Contact	±20KV
Peak Pulse Current (8/20µs)	I _{PP}	5A
Peak Pulse Power (8/20µs) ^(Note2)	P _{PK}	80W
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

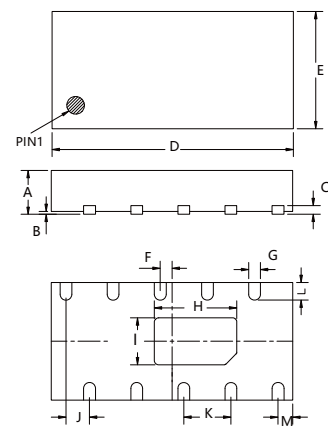


Marking Code



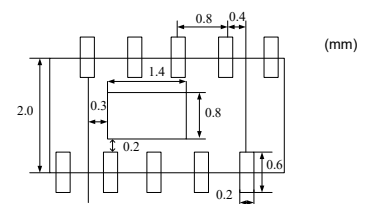
ESD Protection Device

DFN4120-10

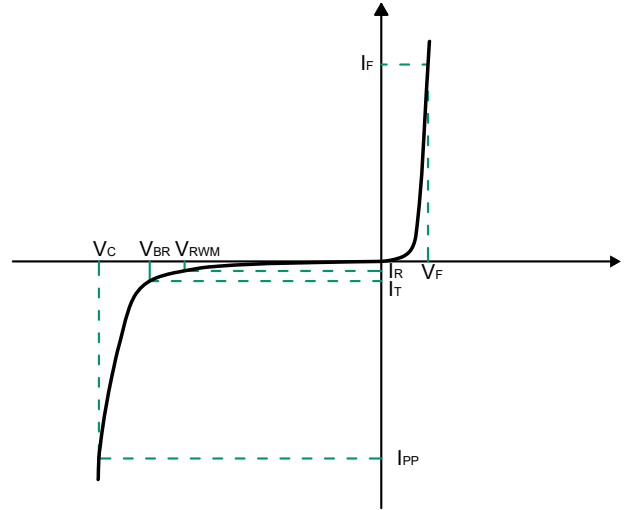


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.020	0.024	0.50	0.60	
B	0.000	0.002	0.00	0.05	
C	0.006		0.150		TYP.
D	0.162	0.166	4.05	4.15	
E	0.075	0.082	1.95	2.05	
F	0.008		0.200		TYP.
G	0.006	0.010	0.15	0.25	
H	0.050	0.060	1.25	1.50	
I	0.026	0.036	0.65	0.90	
J	0.016		0.40		TYP.
K	0.032		0.80		TYP.
L	0.008	0.016	0.20	0.40	
M	0.010		0.25		TYP.

SUGGESTED SOLDER PAD LAYOUT



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
I_F	Forward Current
V_F	Forward Voltage @ IF



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Any I/O Pin to GND						
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	$V_{RWM}=5V$			0.5	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP}=1A, t_p=8/20\mu s$			10	V
Clamping Voltage ^{Note1}	V_C	$I_{PP}=5A, t_p=8/20\mu s$			16	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		0.3	0.4	pF

Note :

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

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

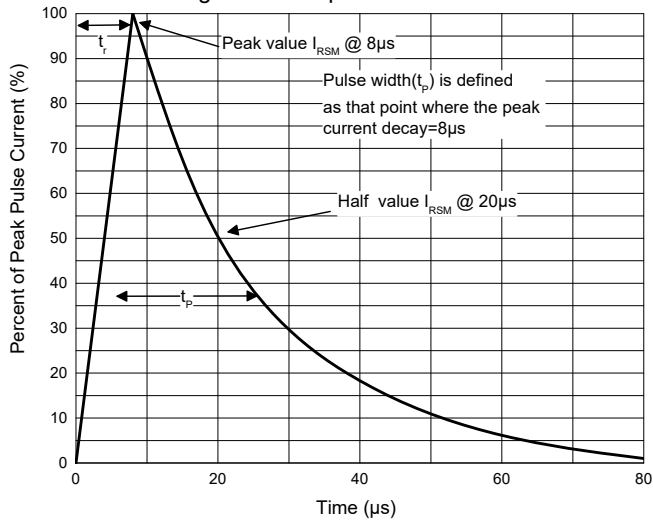


Fig. 2 - Non-Repetitive Peak Pulse Power

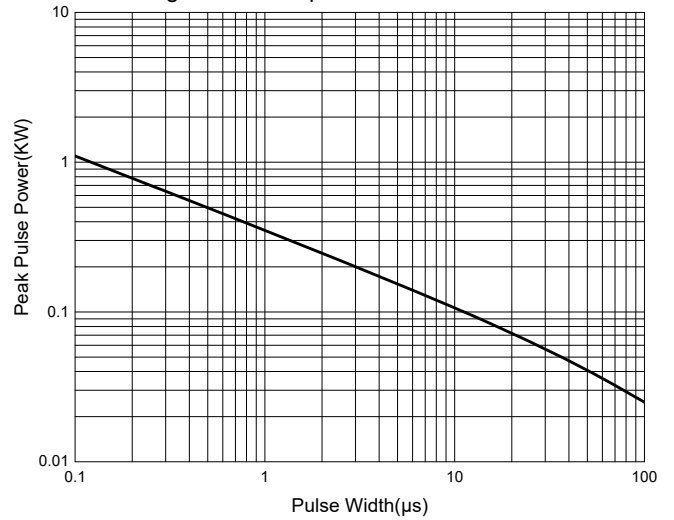


Fig. 3 - Capacitance Characteristics

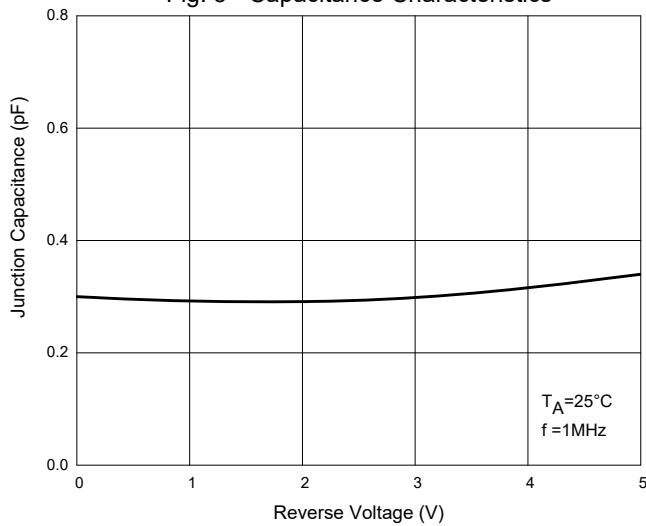


Fig. 4 - Clamping Voltage Characteristics

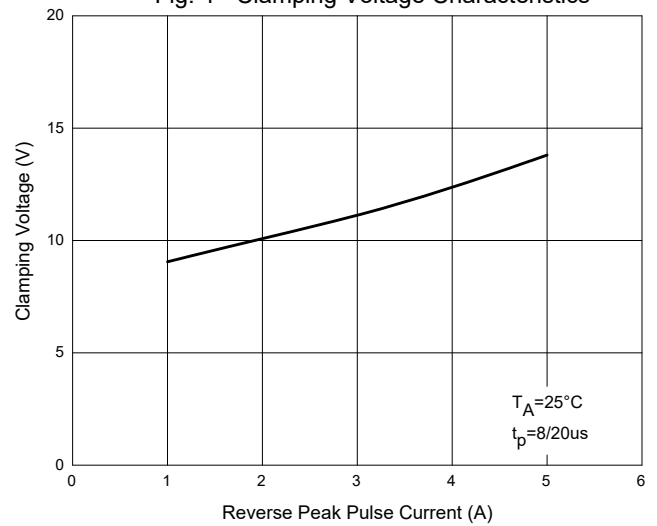
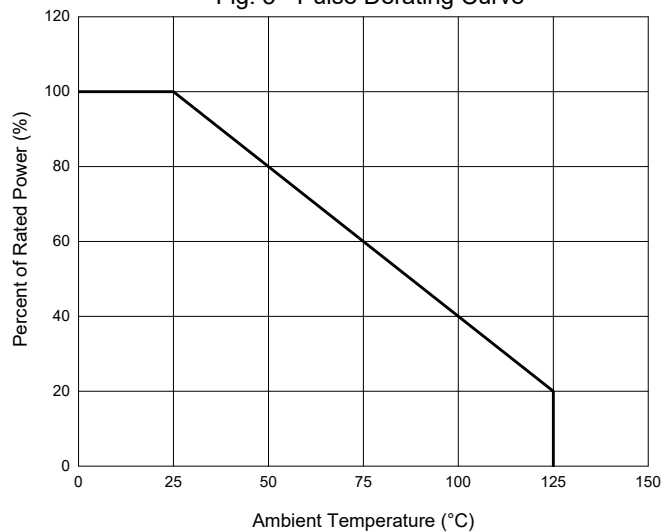


Fig. 5 - Pulse Derating Curve



Ordering Information

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

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