

Features

- Low operating voltage: 30V
- Ultra low leakage: nA level
- Low clamping voltage
- -IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
-IEC61000-4-5 (Lightning) 210A (8/20ns)
- 3-pin leadless package
- These are Pb-Free Devices
- Response Time is Typically $< 1\text{ ns}$

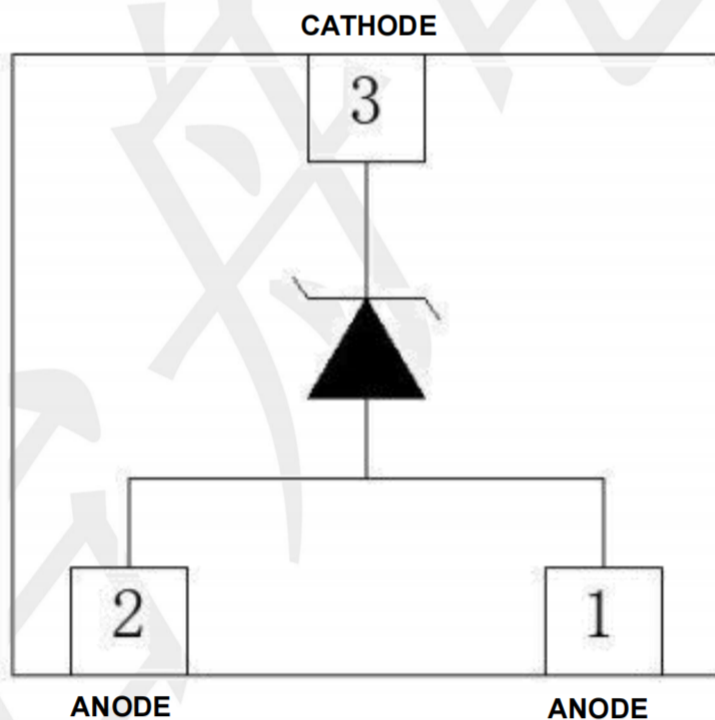
Mechanical Characteristics

- Package: DFN2X2-3
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- -IEC 61000-4-2 (ESD) immunity test

Applications

- Power Management
- Industrial Application
- Power Supply Protection
- Peripherals

Dimensions and Pin Configuration



DFN2X2-3

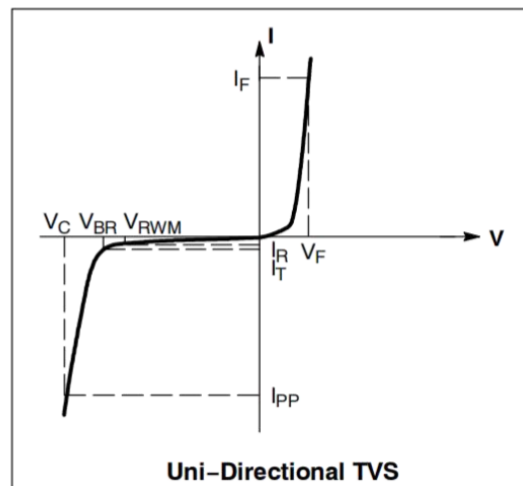
Absolute Maximum Ratings ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	8600	W
Peak Pulse Current (8/20 μs)	Ipp	210	A
ESD per IEC 61000-4-2 (Air)	VESD	± 30	KV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	--	--	30	V	
Breakdown Voltage	VBR	32	--	36.5	V	$I_T = 1\text{mA}$
Reverse Leakage Current	IR	--	--	1	μA	$VRWM = 30\text{V}$
Forward voltage	VF	--	0.8	1.2	V	$I_F = 10\text{mA}$
Clamping Voltage	VC	--	37	40	V	$I_{pp} = 150\text{A}$ (8x 20 μs pulse)
Clamping Voltage	VC	--	41	45	V	$I_{pp} = 210\text{A}$ (8x 20 μs pulse)
Junction Capacitance	CJ	--	--	900	pF	$VR = 0\text{V}$, $f = 1\text{MHz}$

Symbol	Parameter
I_{pp}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{pp}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Capacitance @ $V_R = 0$ and $f = 1.0\text{MHz}$



Characteristic Curves

Fig1. 8/20 μ s Pulse Waveform

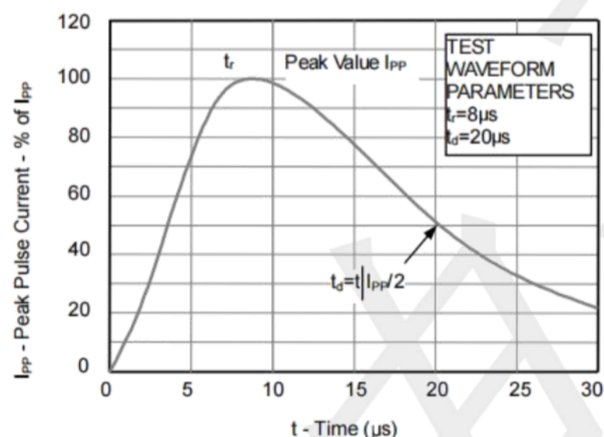


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

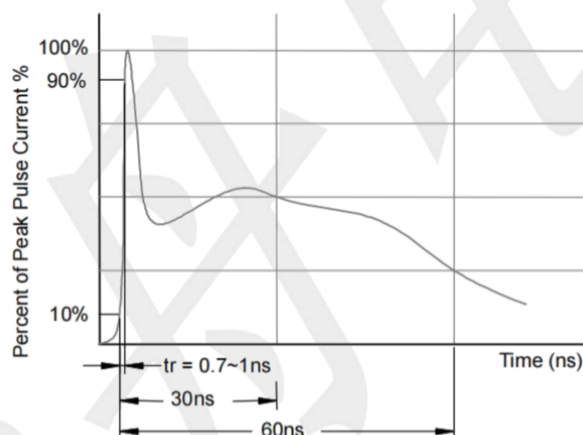
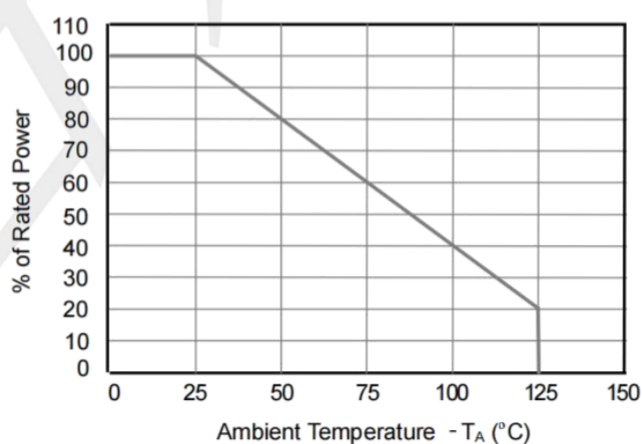
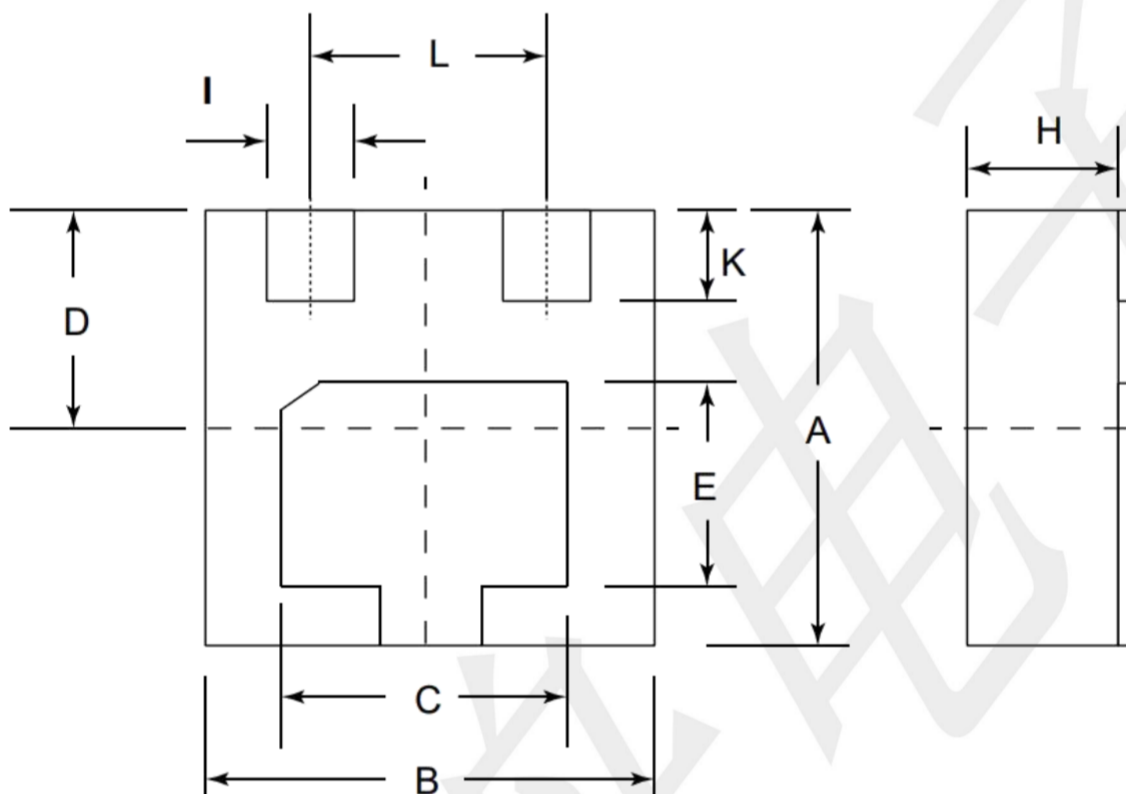


Fig3. Power Derating Curve



Package Outline Dimensions (unit: mm)

DFN2X2-3



DIM	Millimeters		
	Min	Nom	Max
A	1.90	2.00	2.10
B	1.90	2.00	2.10
C	1.40	1.50	1.60
D	0.95	1.0	1.05
E	0.90	1.00	1.10
H			0.65
L		1.3	
I	0.25	0.30	0.35
K	0.35	0.40	0.45