

### Features

- Low operating voltage: 24V
- 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) 4A (8/20ns)
- 3-pin leadless package
- These are Pb-Free Devices
- Response Time is Typically  $< 1\text{ ns}$

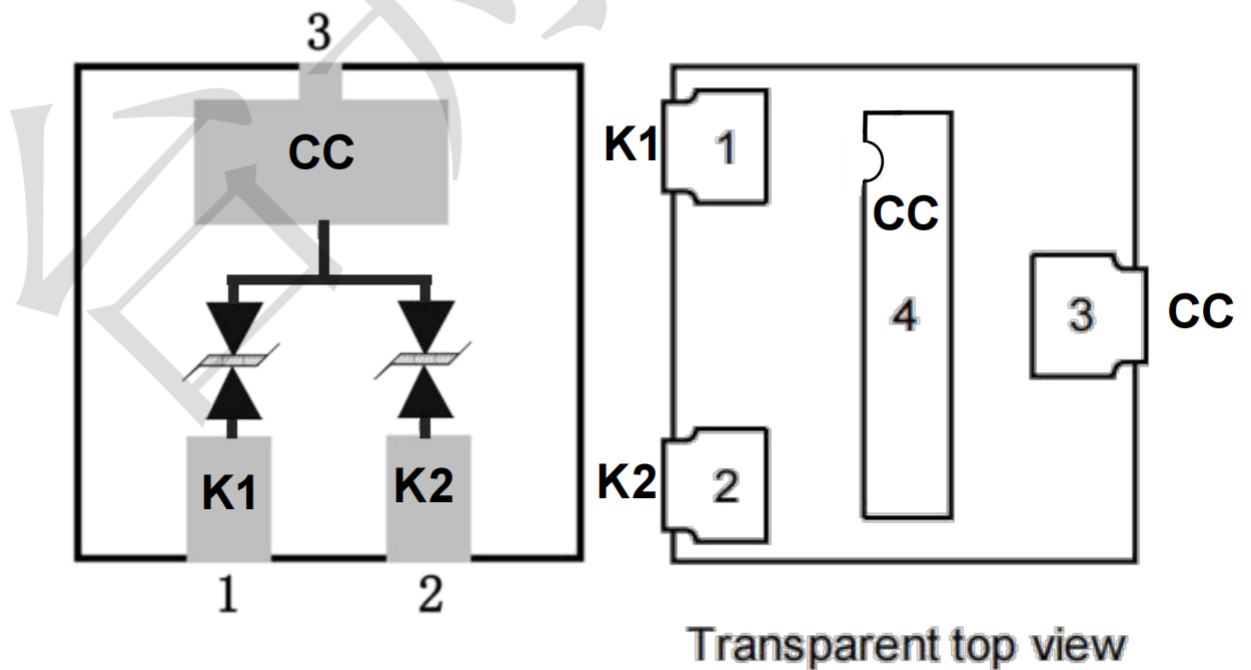
### Mechanical Characteristics

- Package: DFN1X1-3
- 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



**DFN1X1-3**

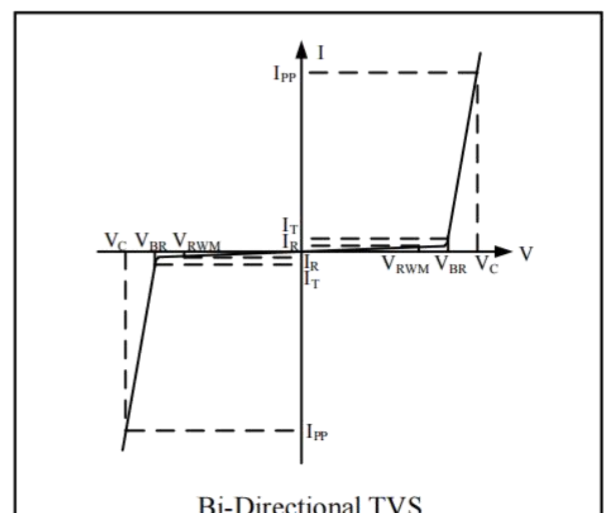
### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	140	W
Peak Pulse Current (8/20μs)	Ipp	4	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±30 ±30	KV
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

### Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	--	--	24	V	
Breakdown Voltage	VBR	26.7	--	--	V	IT= 1mA
Reverse Leakage Current	IR	--	--	0.08	uA	VRWM=24V
Clamping Voltage	VC	--	32	--	V	Ipp=1A(8x 20us pulse)
Clamping Voltage	VC	--	35	40	V	Ipp=4A(8x 20us pulse)
Junction Capacitance	CJ	--	7	--	pF	VR = 0V, f = 1MHz, Pin1 to Pin2
Junction Capacitance	CJ	--	10	18	pF	VR = 0V, f = 1MHz, Pin1,2 to Pin3

Symbol	Parameter
$V_{RWM}$	Nominal Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Reverse Breakdown Voltage @ $I_T$
$I_T$	Test Current for Reverse Breakdown
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Maximum Peak Pulse Current
$C_{ESD}$	Parasitic Capacitance
$V_R$	Reverse Voltage
f	Small Signal Frequency



### Characteristic Curves

Fig1. 8/20 $\mu$ s Pulse Waveform

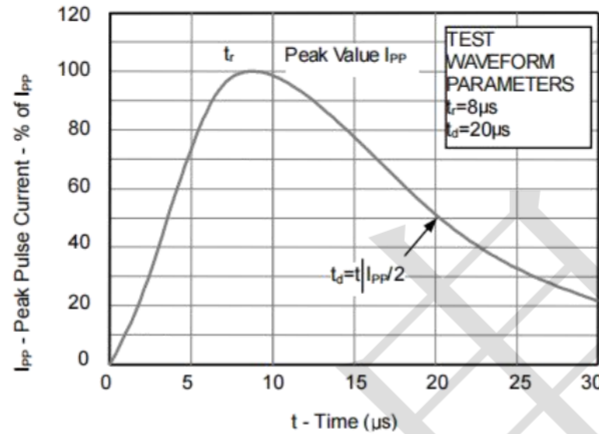


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

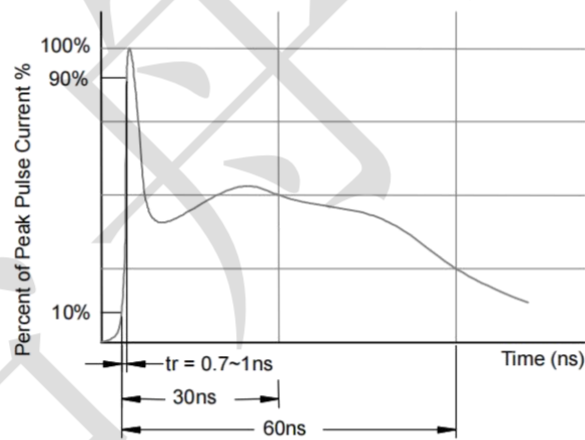
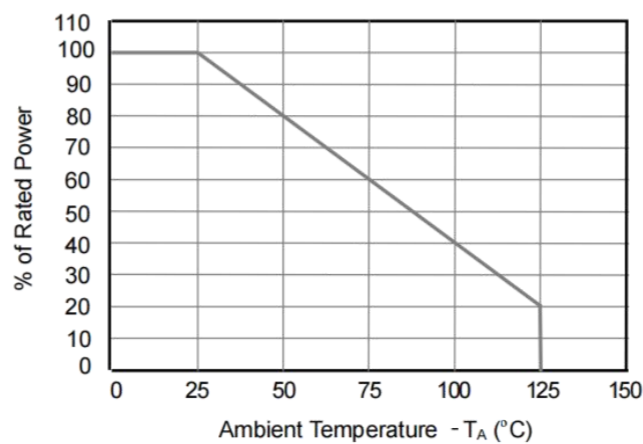
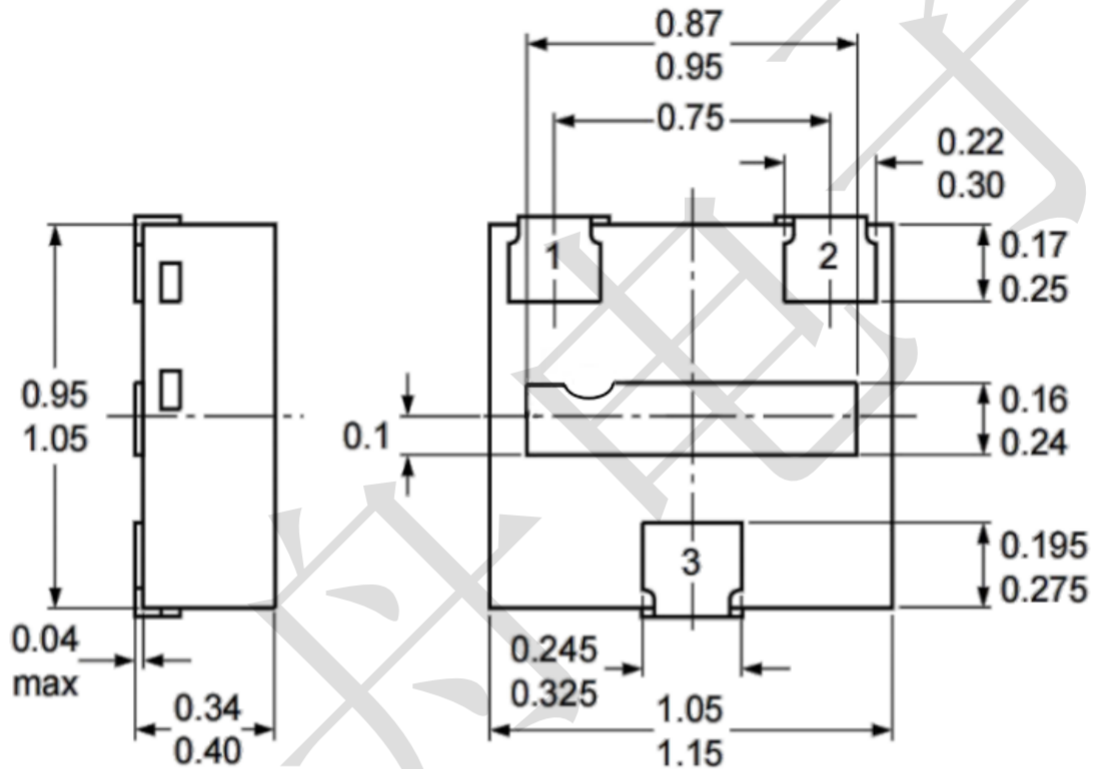


Fig3. Power Derating Curve



**Package Outline Dimensions (unit: mm)**

DFN1X1-3



**Mounting Pad Layout (unit: mm)**

