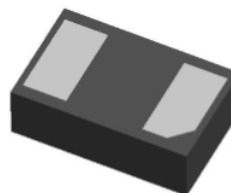


1-Line Uni-directional TVS Diode

Features

- Ultra low leakage: nA level
- Operating voltage: 30V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning)80A (8/20 μs)
- RoHS Compliant

Dimensions DFN1610-2



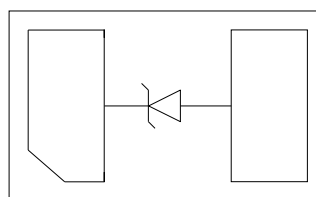
Applications

- Mobile Phones and Accessories
- Battery Protection
- USB VBus
- Power Line Protection
- Hand Held Portable Applications

Mechanical Characteristics

- Package: DFN1610-2
- Lead Finish: NiPdAu
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:10,000pcs
- Reel Size:7 inch
- Device Marking: HHW

Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppp	2900	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +125	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				30	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	32			V
Reverse Leakage Current	I_R	$V_{RWM} = 30V$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 80A$ (8 x 20 μs pulse)			37	V
Junction Capacitance	C_J	$V_R = 0V$, $f = 1MHz$		193	210	pF

Typical Characteristics (TA=25°C unless otherwise specified)

Figure 1: Peak Pulse Power vs. Pulse Time

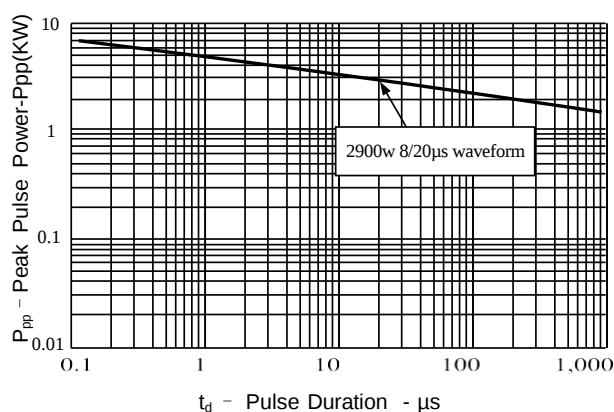


Figure 2: Power Derating Curve

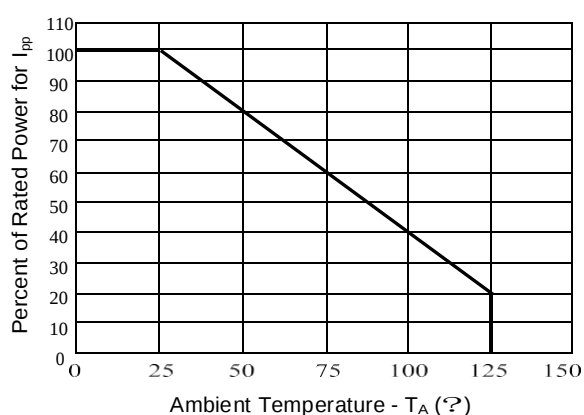


Figure3: 8x20μs Pulse Waveform

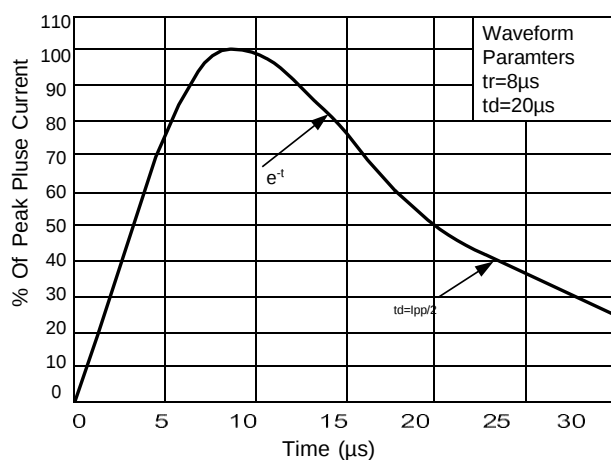
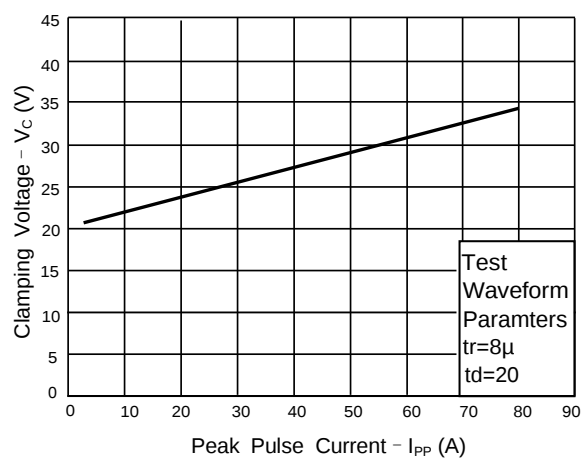
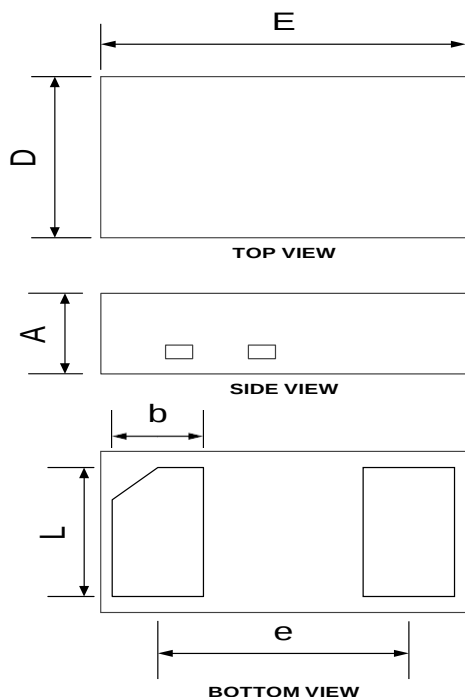


Figure 4: Clamping Voltage vs. Ipp

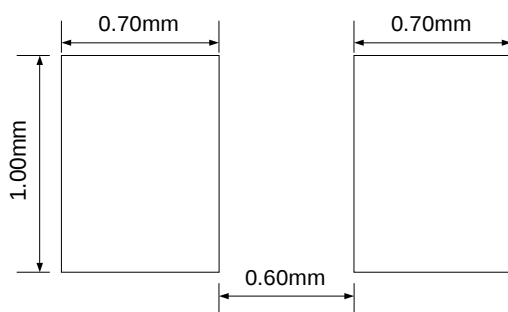


Outline Drawing-DFN1610- 2



COMMON DIMENSION (mm)			
PKG	DFN161 0-2		
REF.	MIN.	NOM.	MAX.
A	0.450	0.500	0.55
D	0.95	1.00	1.05
E	1.55	1.60	1.65
b	0.35	0.4	0.45
e	1.10BSC		
L	0.75	0.80	0.85

Land Pattern*



* This land pattern is for reference purposes only