

## Features

- \* 1800W peak pulse power (8/20 $\mu$ s)
- \* Low leakage: nA level
- \* Low operating voltage: 12V
- \* Ultra low clamping voltage
- \* One power line protects
- \* Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30$ kV
    - Contact discharge:  $\pm 30$ kV
  - IEC61000-4-5 (Lightning) 76A (8/20 $\mu$ s)
- \* RoHS Compliant

## Mechanical Characteristics

- \* Package: DFN1610-2
- \* Ultra low leakage: nA level
- \* Case Material: “Green” Molding Compound.
- \* UL Flammability Classification Rating 94V-0
- \* Moisture Sensitivity: Level 3 per J-STD-020

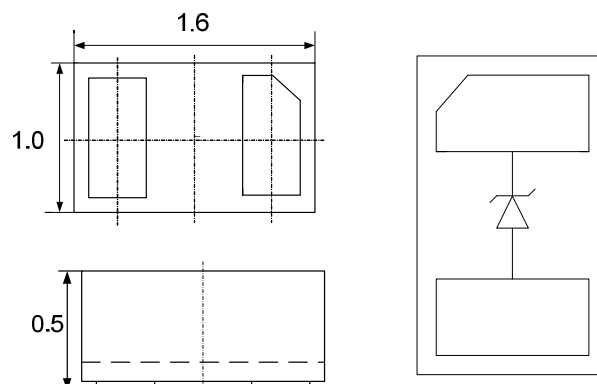
## Applications

- \* Power Management
- \* Industrial Application
- \* Power Supply Protection
- \* Many other portable devices

## Ordering Information

Part Number	Qty per Reel	Reel Size
TPTVS1271P	3000 Or 10000	7"

## Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	1800	W
Peak Pulse Current (8/20μs)	Ipp	76	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	°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			12	V	
Breakdown Voltage	VBR	13	15		V	IT = 1mA
Reverse Leakage Current	IR			1	uA	VRWM = 12V
Clamping Voltage	VC		21		V	Ipp=50A(8x 20us pulse)
Clamping Voltage	VC		25		V	Ipp=76A(8x 20us pulse)
Junction Capacitance	CJ		390		pF	VR = 0V, f = 1MHz

**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**

Fig1. 8/20 $\mu\text{s}$  Pulse Waveform

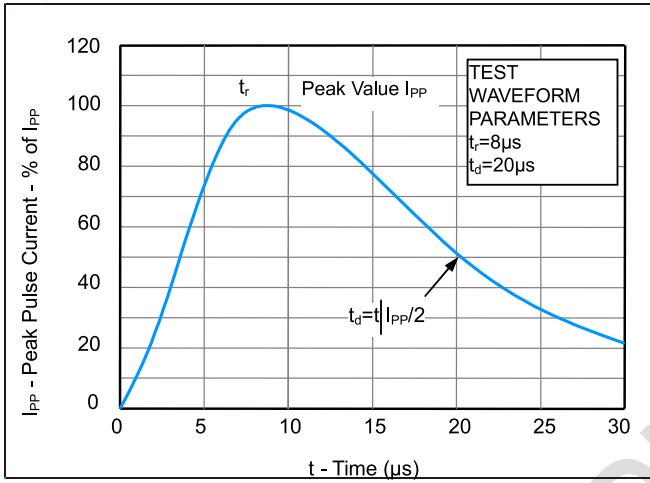


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

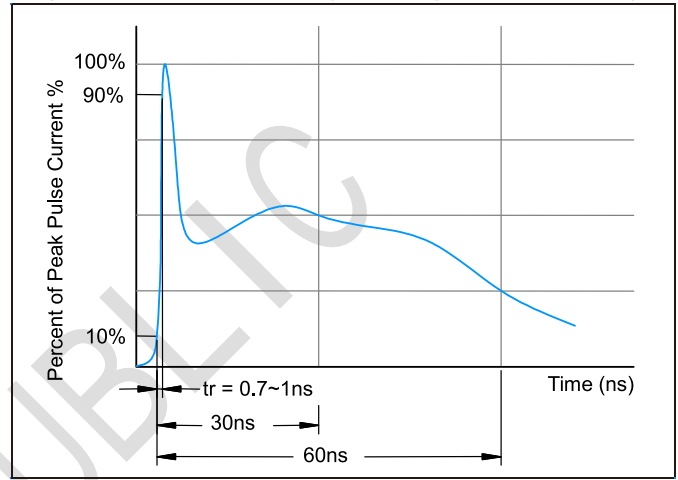
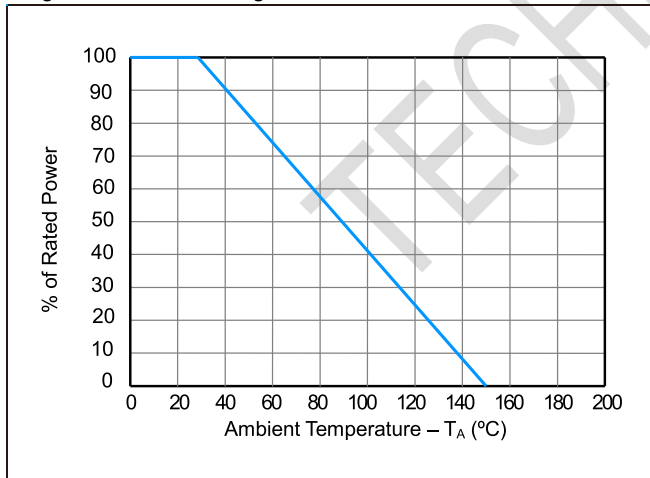
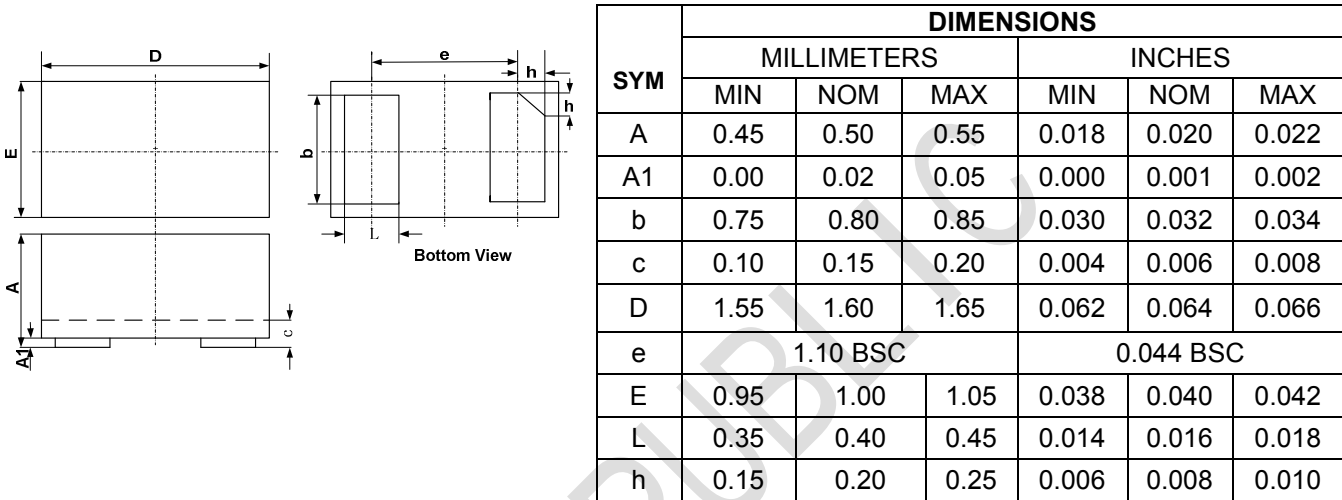


Fig3. Power Derating Curve



**DFN1610-2 Package Outline Drawing**



**Suggested Land Pattern**

