

## Features

- ◆ 240W peak pulse power(8/20 $\mu$ s)
- ◆ Protects one bi-directional or two uni-directional lines
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 36V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm$ 30kV  
Contact discharge:  $\pm$ 30kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 4A (8/20 $\mu$ s)
- ◆ RoHS Compliant

## Mechanical Characteristics

- ◆ Package: SOT-23
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: "Green" Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J STD 020

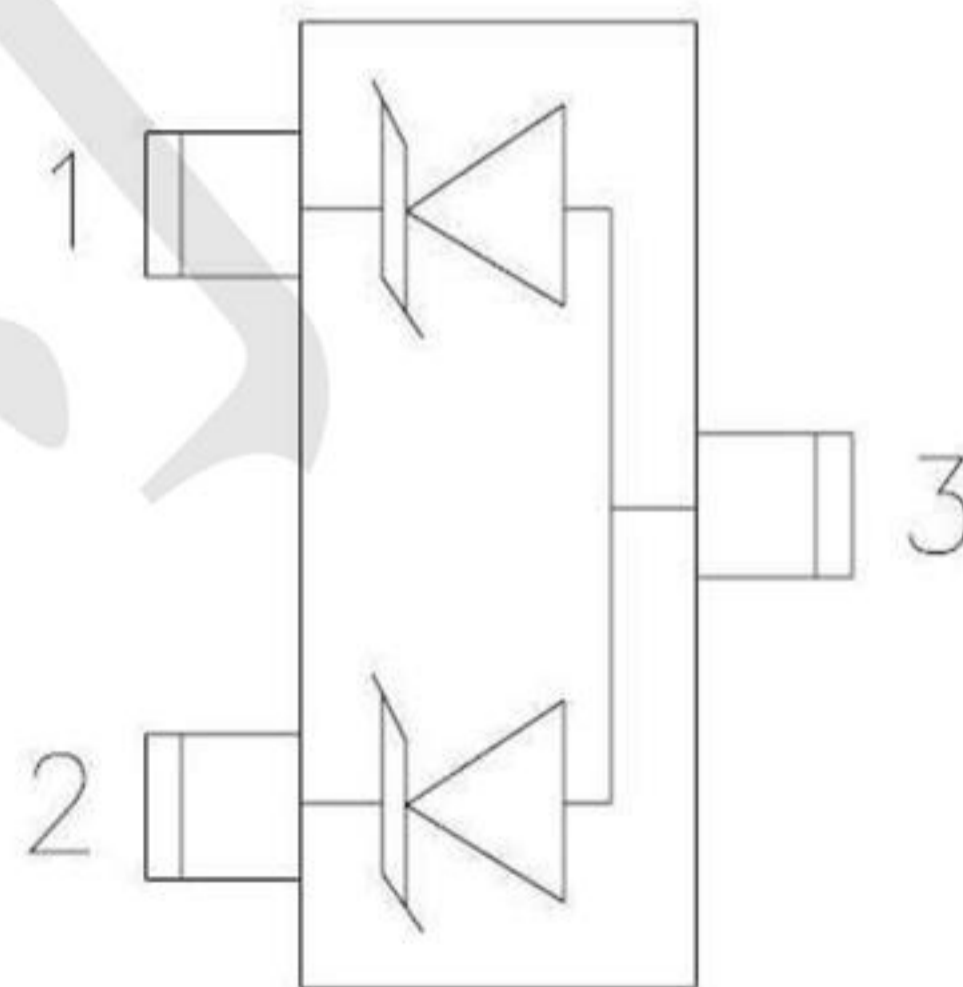
## Applications

- ◆ Cellular Handsets and Accessories
- ◆ Notebooks and Handhelds
- ◆ Portable Instrumentation
- ◆ Set Top Box
- ◆ Industrial Controls

## Ordering Information

Part Number	Qty per Reel	Reel Size
PESD36VS2UT	3000	7"

## Dimensions and Pin Configuration



Marking: S36

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

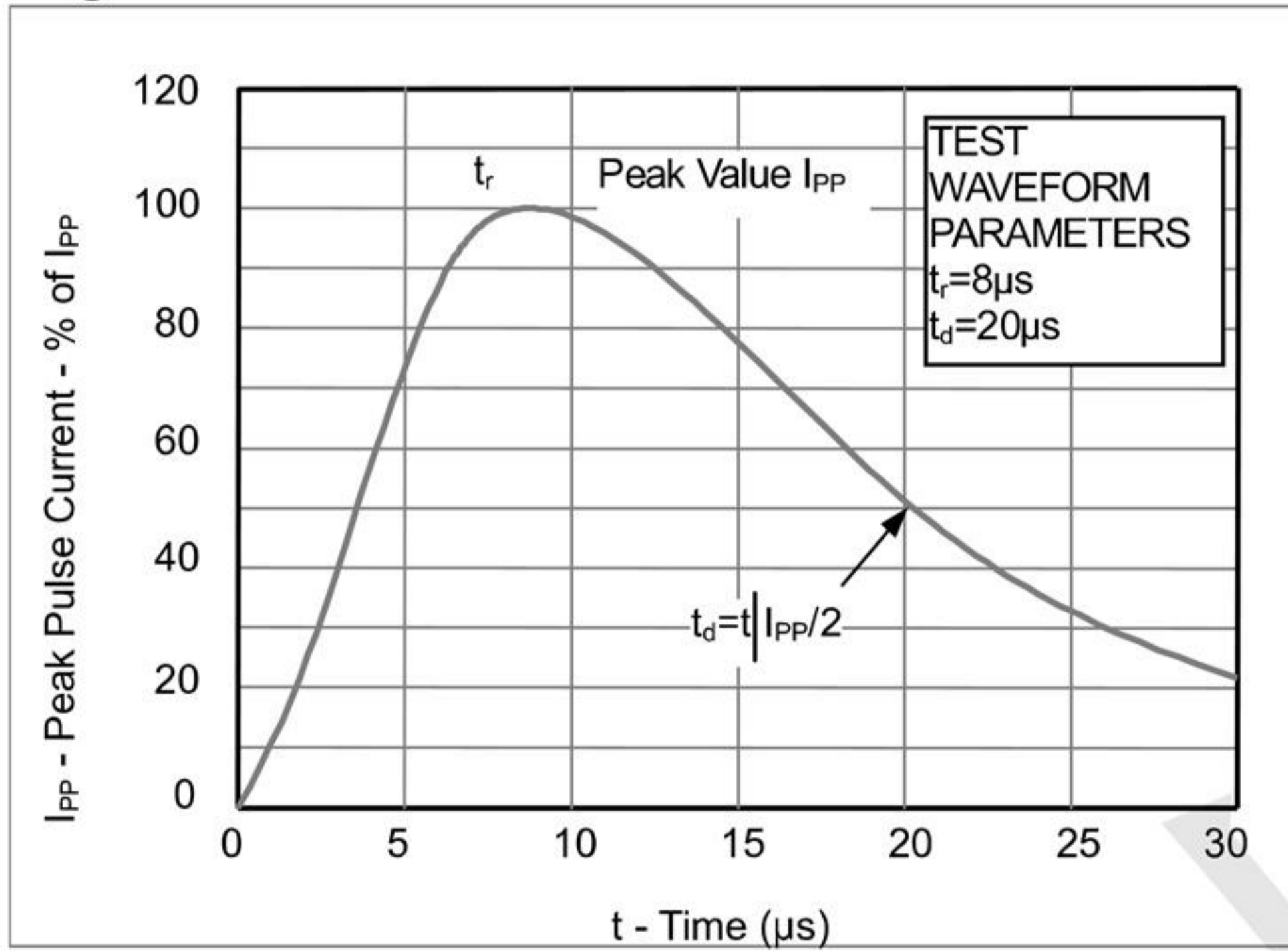
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppk	240	W
Peak Pulse Current (8/20 $\mu\text{s}$ )	I <sub>PP</sub>	4	A
ESD per IEC 61000-4-2 (Air)	VESD	$\pm 30$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	$^{\circ}\text{C}$

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

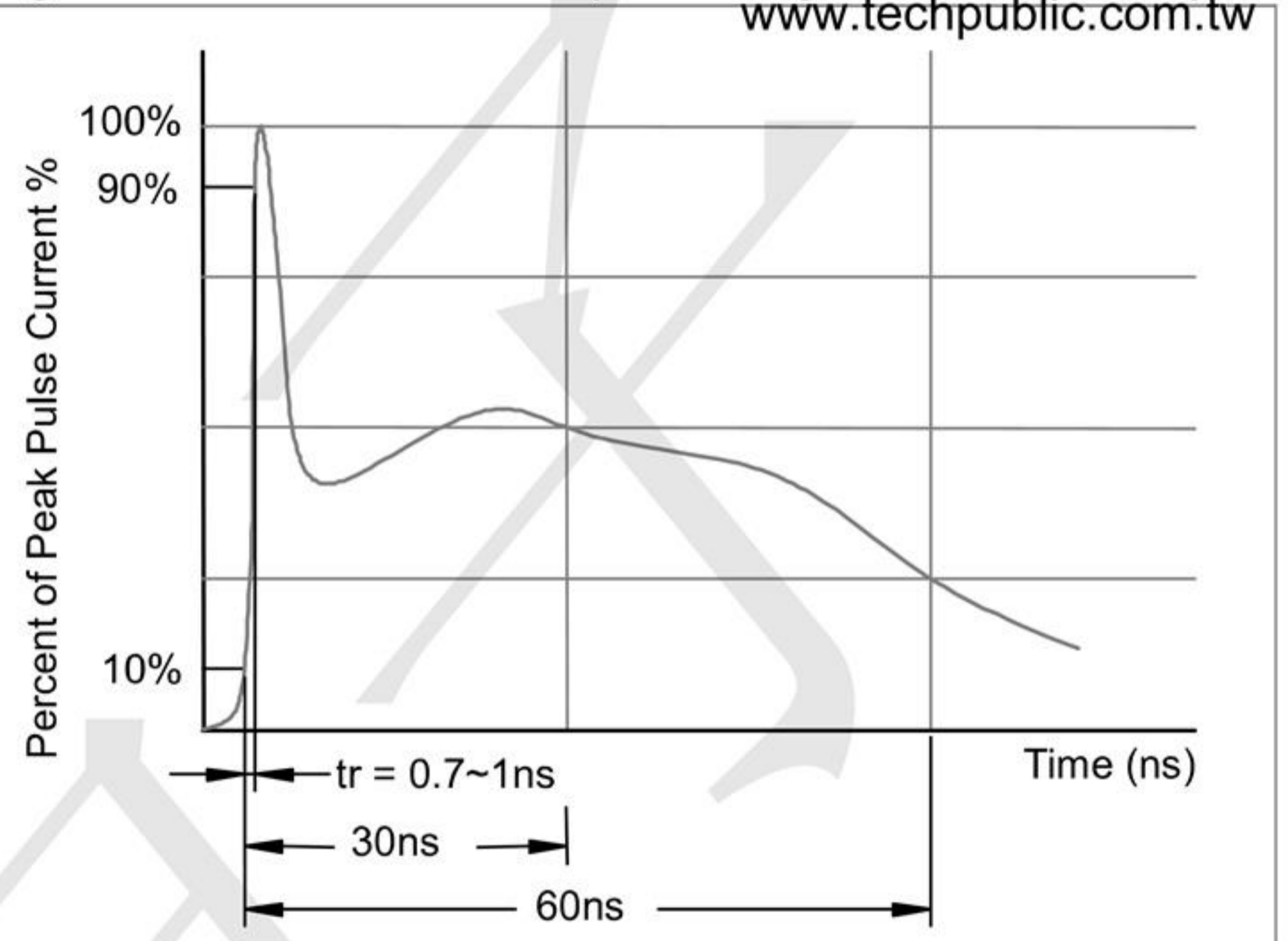
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V <sub>RWM</sub>			36	V	
Breakdown Voltage	V <sub>BR</sub>	39.5			V	I <sub>T</sub> = 1mA
Reverse Leakage Current	I <sub>R</sub>			0.1	$\mu\text{A}$	V <sub>RWM</sub> = 36V
Forward Voltage	V <sub>F</sub>		0.8	1.2	V	I <sub>F</sub> = 10mA
Clamping Voltage	V <sub>C</sub>			37	V	I <sub>PP</sub> = 1A (8 x 20 $\mu\text{s}$ pulse)
Clamping Voltage	V <sub>C</sub>			60	V	I <sub>PP</sub> = 4 A (8 x 20 $\mu\text{s}$ pulse)
Junction Capacitance	C <sub>J</sub>			33	pF	V <sub>R</sub> =0, f=1MHz, Pin 1 to Pin 3 or Pin 2 to Pin 3
Junction Capacitance	C <sub>J</sub>		15		pF	V <sub>R</sub> =0, f=1MHz, Pin 1 to Pin 2

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

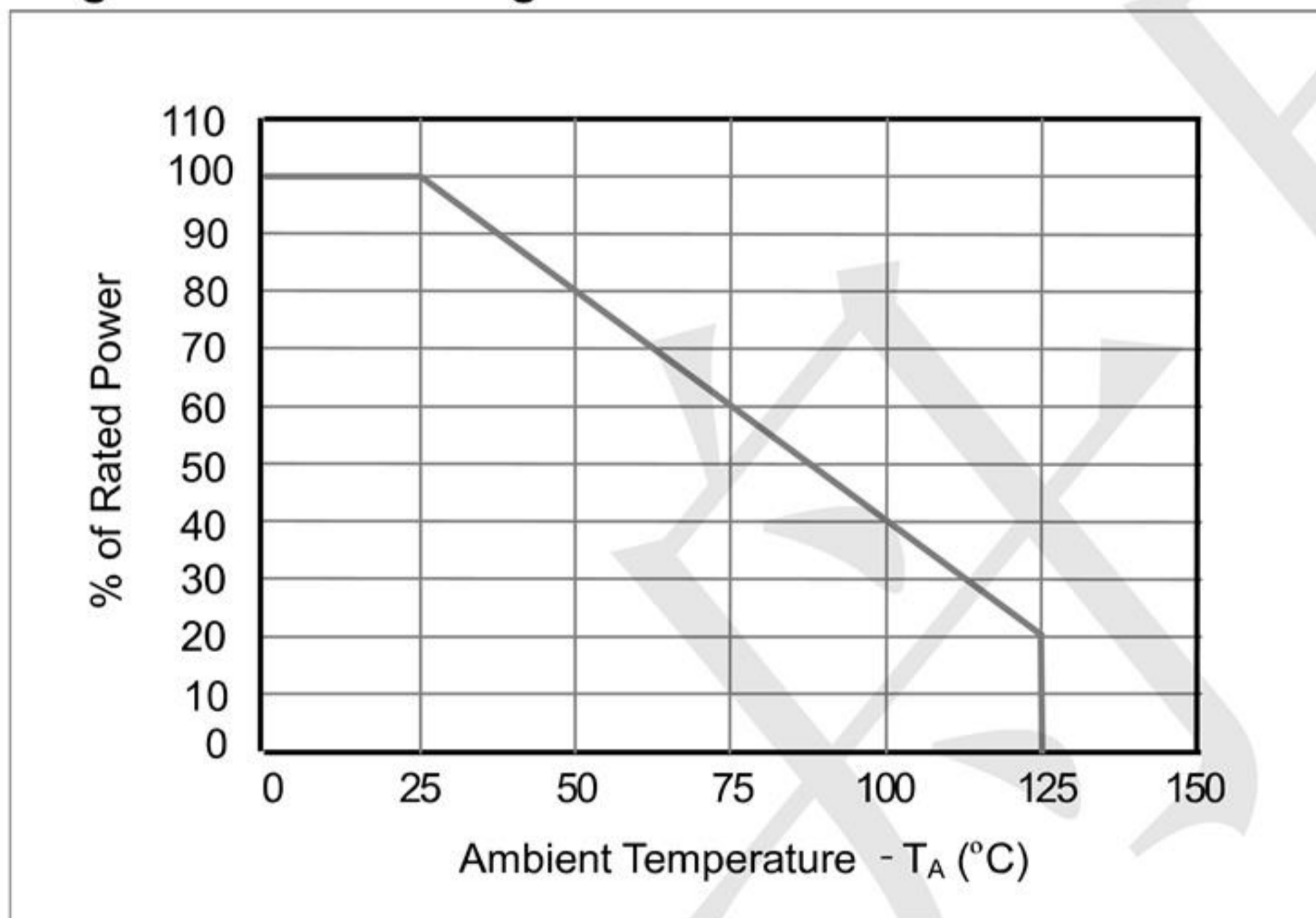
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



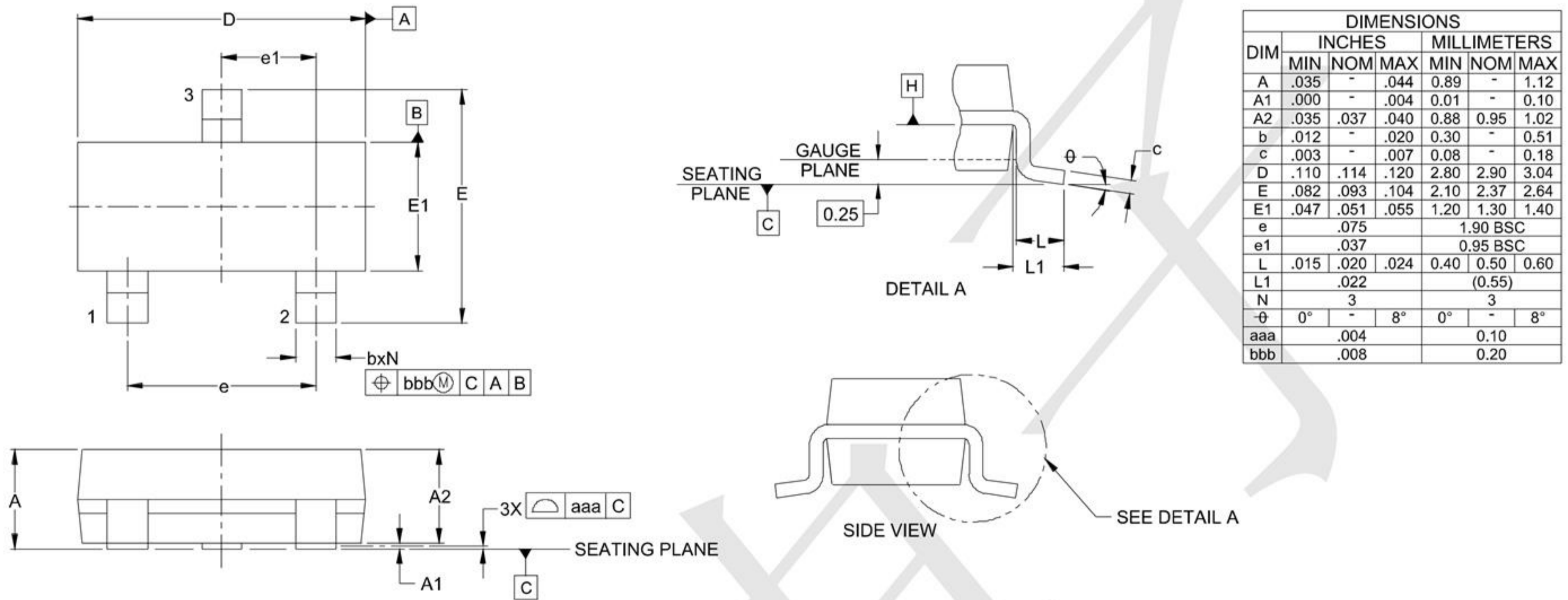
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**



### Outline Drawing - SOT23



### Land Pattern - SOT23

