

## Features

- ◆ Ultra low capacitance: 0.6pF typical I/O to GND
- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 5.5V
- ◆ Uni-directional TVS Diode Array
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±20kV
    - Contact discharge: ±15kV
  - IEC61000-4-5 (Lightning)3.3A (8/20 μs)
  - IEC61000-4-4 (EFT) 80A (5/50ns)
- ◆ ROHS Compliant

## Mechanical Characteristics

- ◆ Package: SOT23-6
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: “Green” Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J-STD-020

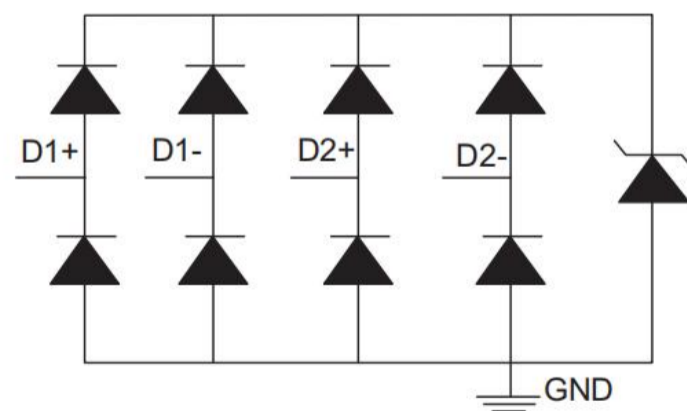
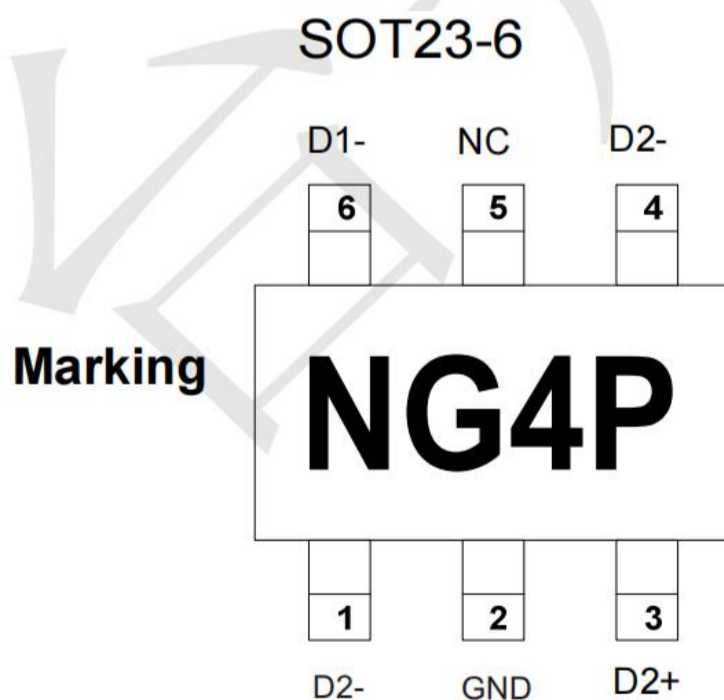
## Applications

- ◆ Glucose Meter
- ◆ Tablets
- ◆ GPS
- ◆ Portable Media Players

## Ordering Information

Part Number	Qty per Reel	Reel Size
TPE4106RS6	3000	7"

## Dimensions and Pin Configuration



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

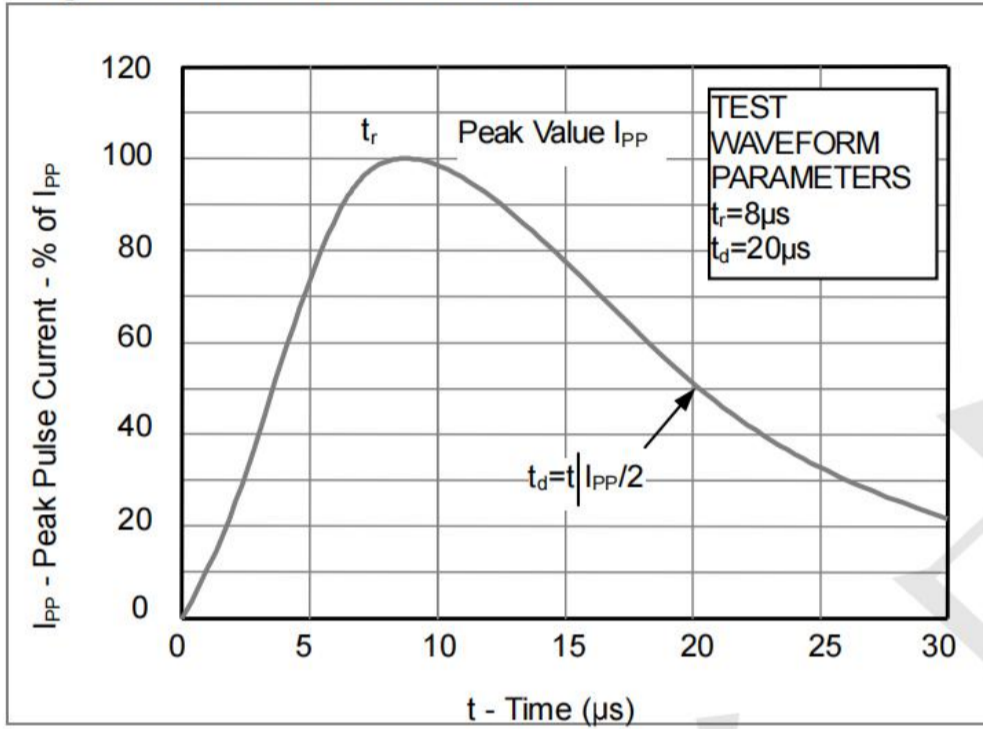
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	50	W
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	V <sub>ESD</sub>	±20 ±15	kV
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C

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

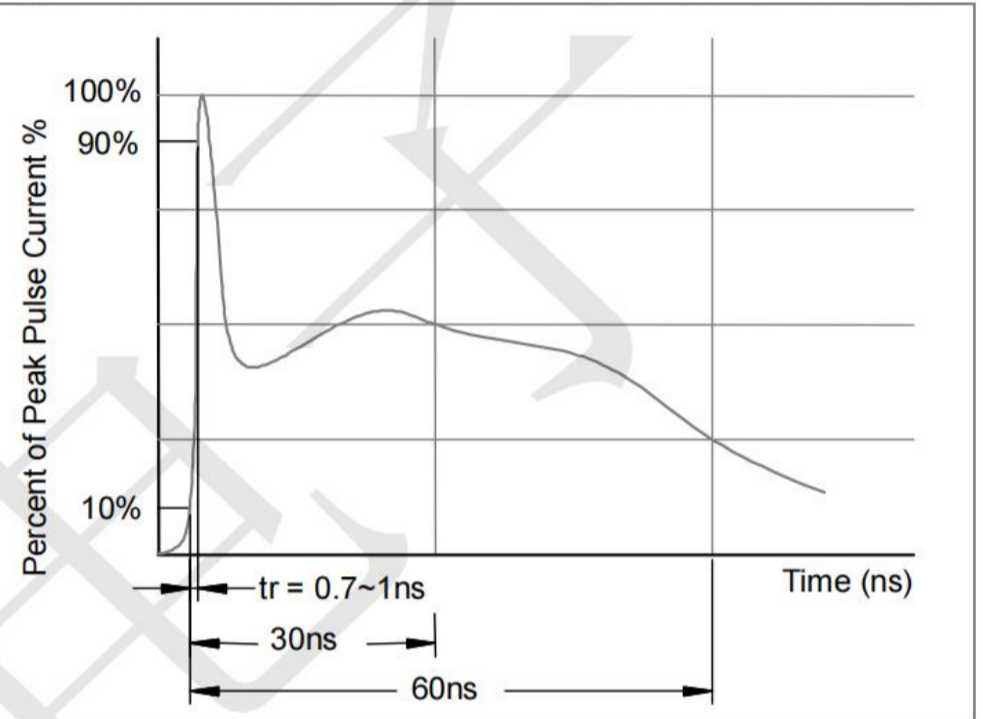
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V <sub>RWM</sub>			5.5	V	
Breakdown Voltage	V <sub>BR</sub>	6.5		8.5	V	I <sub>T</sub> =1mA
Leakage Current	I <sub>Leak</sub>			10	nA	V <sub>RWM</sub> =2.5V
Dynamic resistance	R <sub>DYN</sub>		0.6		Ω	any I/O pin to GND
Clamping Voltage (I/O-GND)	V <sub>C</sub>			9	V	I <sub>PP</sub> =1A, T <sub>p</sub> =8/20 µs
Clamping Voltage (I/O-GND)	V <sub>C</sub>		13	14	V	I <sub>PP</sub> =3A, T <sub>p</sub> =8/20 µs
Junction Capacitance (I/O to GND)	C <sub>J</sub>		0.55	0.9	pF	V <sub>R</sub> =0V, f=1MHz,

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

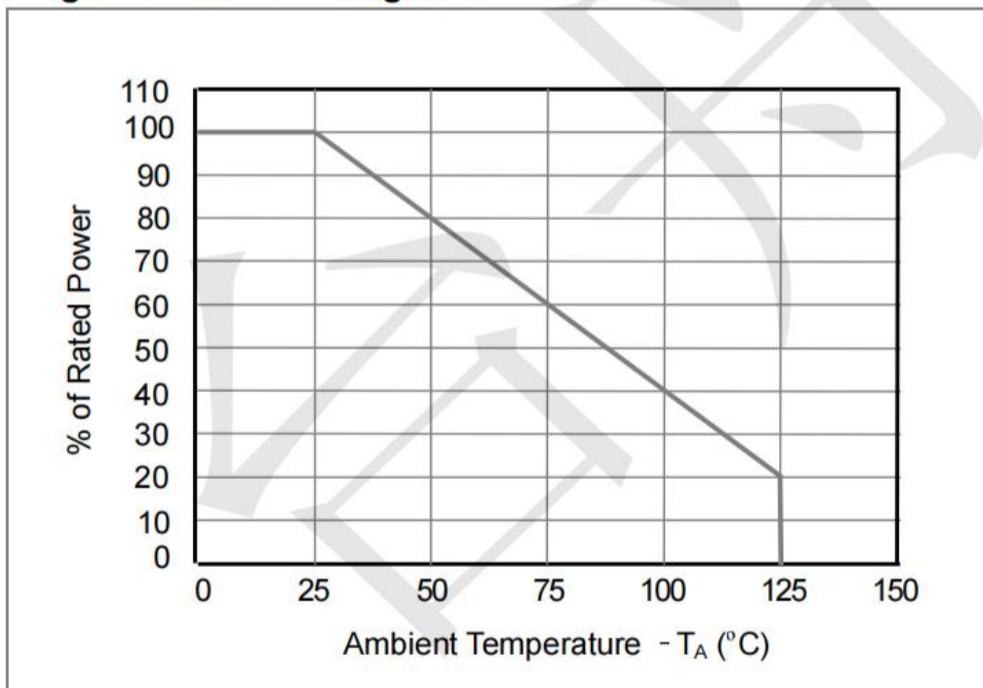
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



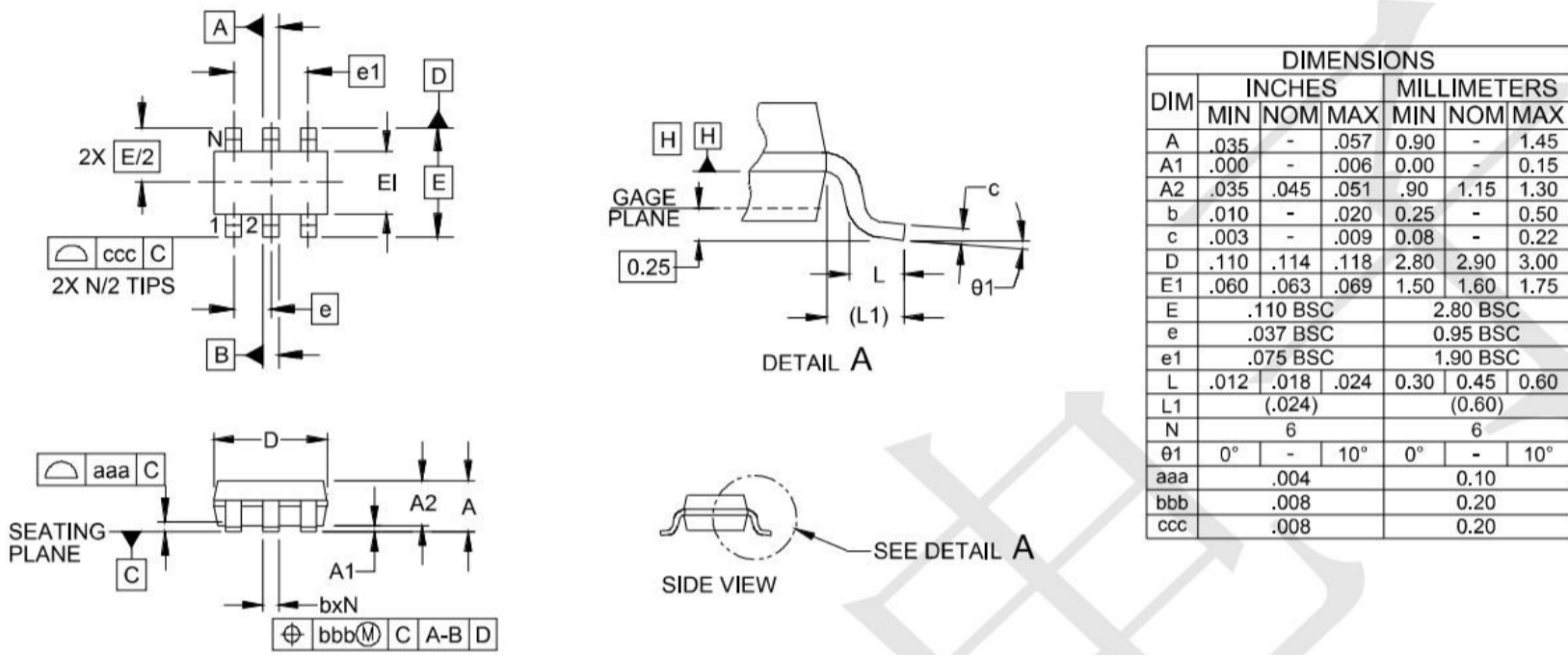
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



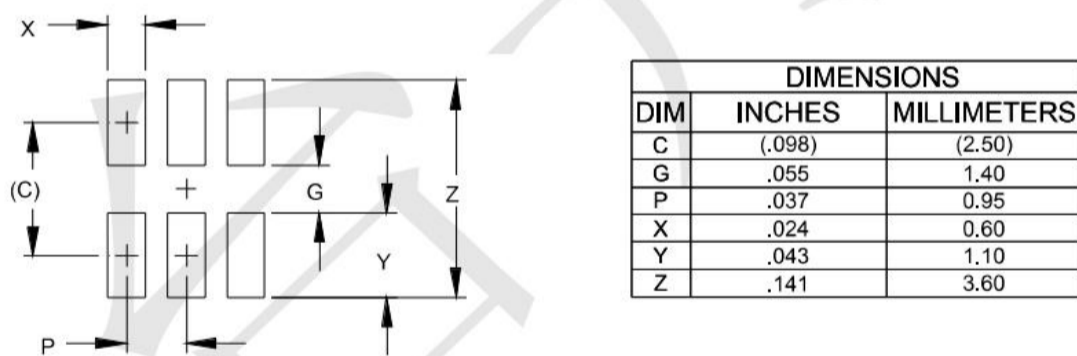
**Fig3. Power Derating Curve**



**Outline Drawing - SOT23-6**



**Land Pattern - SOT23-6**



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