

## Features

- ◆ Low operating voltage: 24V
- ◆ Ultra low leakage: nA level
- ◆ Complies with following standards:
- ◆ – IEC 61000-4-2 (ESD) immunity test
  - Air discharge: 30kV
  - Contact discharge:  $\pm 30$ kV
- ◆ – IEC61000-4-5 (Lightning)7A (8/20  $\mu$ s)
- ◆ RoHS Compliant
- ◆ Lead Finish: NiPdAu

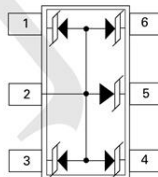
## Mechanical Characteristics

- ◆ 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
- ◆ Shipping Qty :3000 /7Inch Tape & Reel

## Applications

- ◆ Networking and Telecom
- ◆ Automotive Electronics
- ◆ Serial and Parallel Ports
- ◆ Notebooks, Desktops, Servers

## Dimensions and Pin Configuration



**Marking: 6M8**

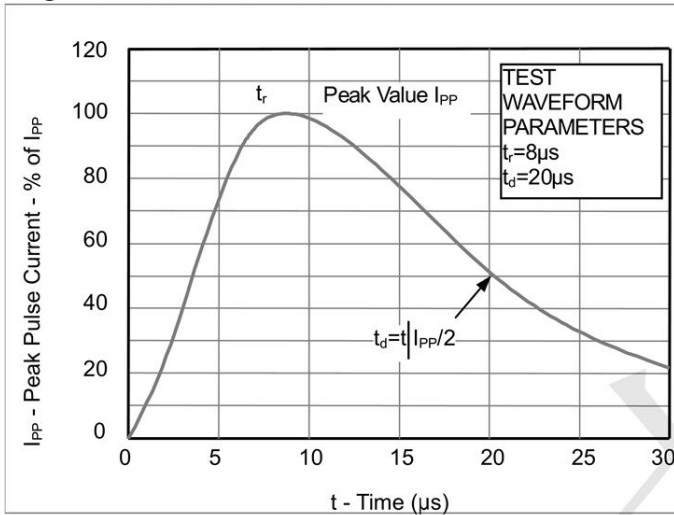
**Absolute Maximum Ratings** (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	300	W
Peak Pulse Current (8/20μs)	Ipp	7	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

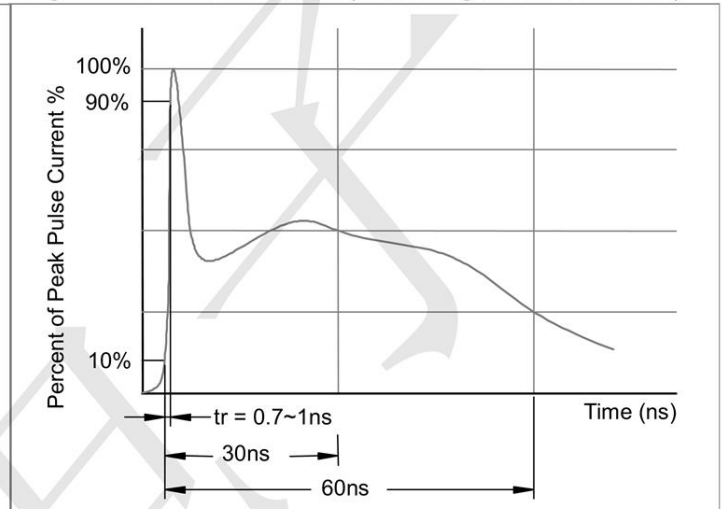
**Electrical Characteristics** (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			24	V	Any I/O pin to ground
Punch-Through Voltage	VBR	26.7			V	IT = 1mA, any I/O pin to ground
Reverse Leakage Current	IR			1	μA	VRWM = 24V, any I/O pin to ground
Clamping Voltage	VC		45		V	I <sub>PP</sub> = 7A (8 x 20us pulse), any I/O pin to ground
Junction Capacitance	CJ			100	pF	VR=0, f=1MHz, between I/O pins

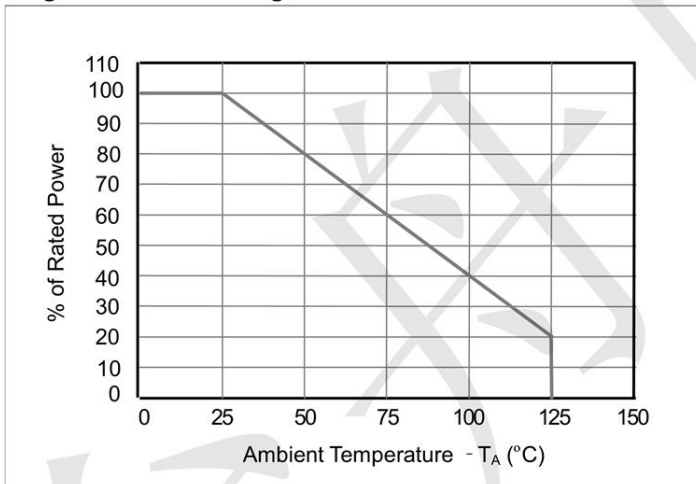
**Fig1. 8/20 $\mu$ s Pulse Waveform**



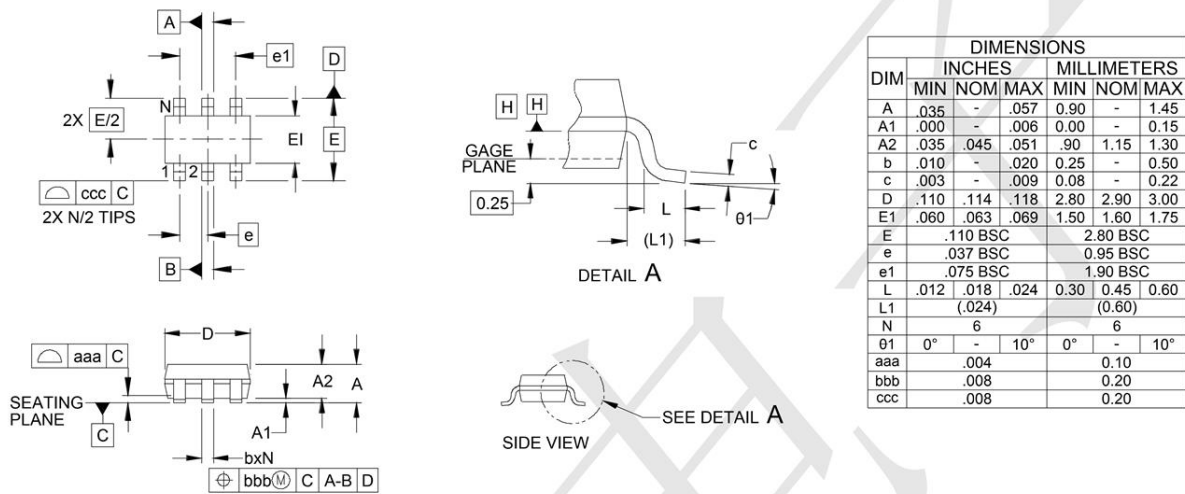
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



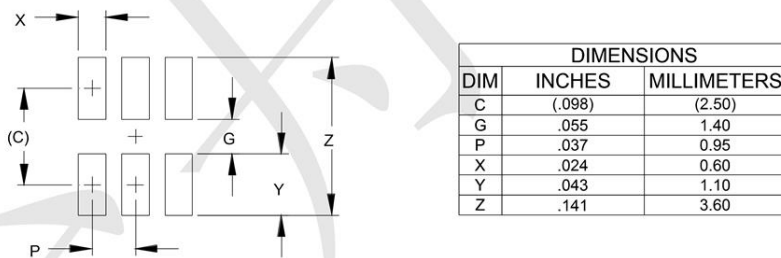
**Fig3. Power Derating Curve**



**Outline Drawing - SOT23-6**



**Land Pattern - SOT23-6**



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