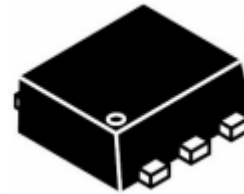


### Features

- Protects up to 5 lines
- Low leakage: nA level
- Low clamping voltage
- Excellent surge protection (25W at 8/20µs)
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±16kV
    - Contact discharge: ±16kV
  - IEC61000-4-5 (Lightning) 1.8A (8/20µs)
- RoHS Compliant

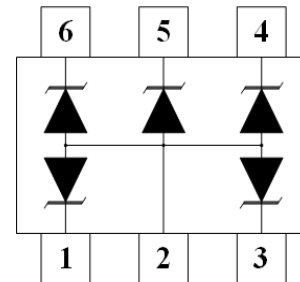
### Dimensions SOT-563



### Applications

- Audio Players
- Peripherals
- Printers
- Desktops PC , Laptops and Servers
- Microprocessor Based Equipment
- Cell Phone Handsets and Accessories
- Set Top Box

### Pin Configuration



### Mechanical Characteristics

- SOT-563 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 3 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

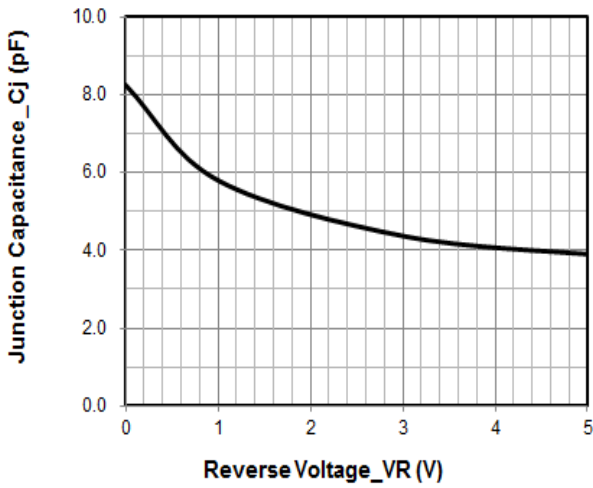
### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppp	25	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	± 16	Kv
ESD per IEC 61000-4-2 (Contact)		± 16	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

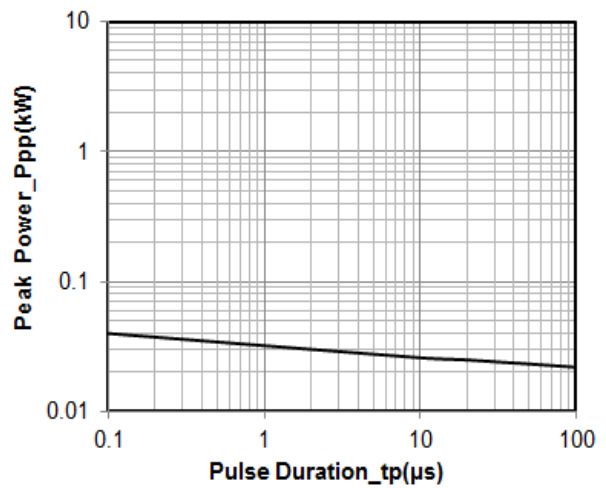
## Electrical Characteristics (TA=25°C unless otherwise specified)

Part Number	Device Marking	V <sub>RWM</sub> (V)	V <sub>BR</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> @1A	V <sub>C</sub>		I <sub>R</sub> μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
ESD0565T6	US6L	5	6	1	10	12	1.8	1	8.3

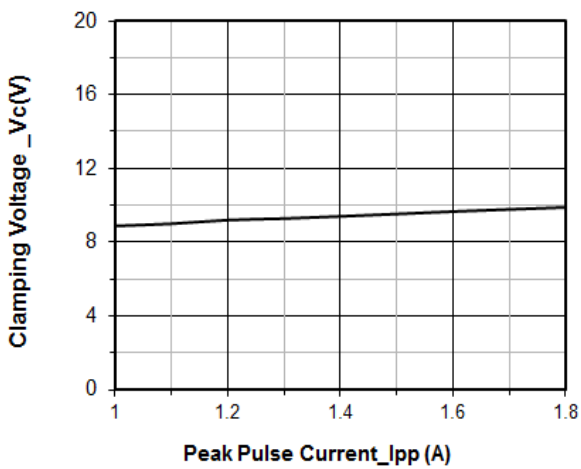
## Typical Performance Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise Specified)



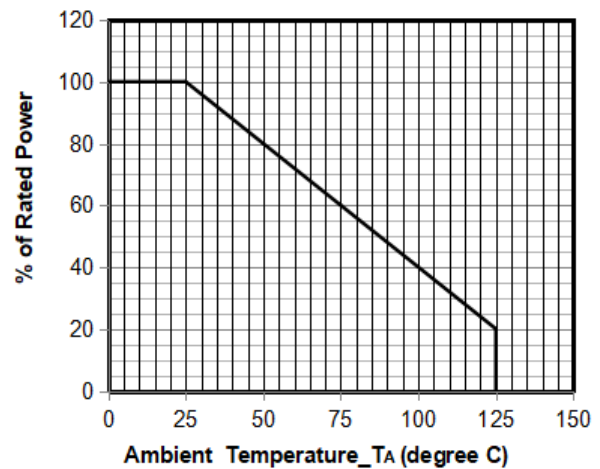
Junction Capacitance vs. Reverse Voltage



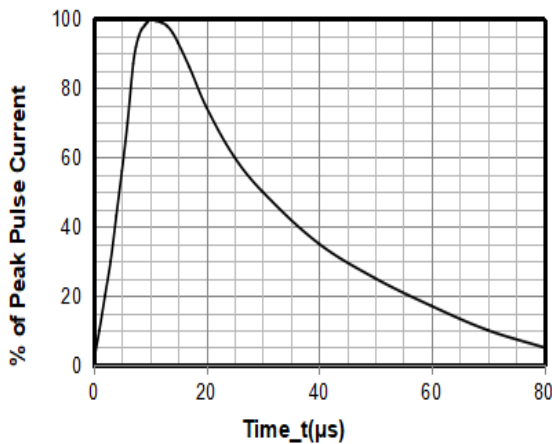
Peak Pulse Power vs. Pulse Time



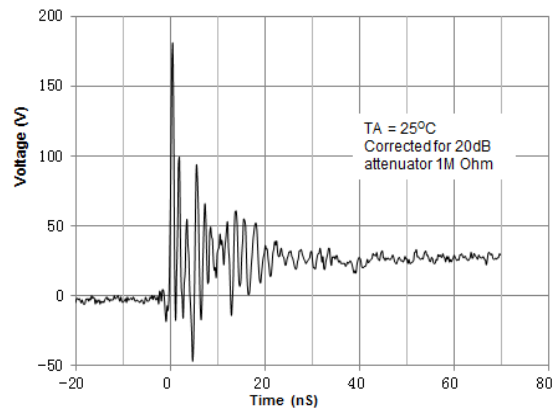
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



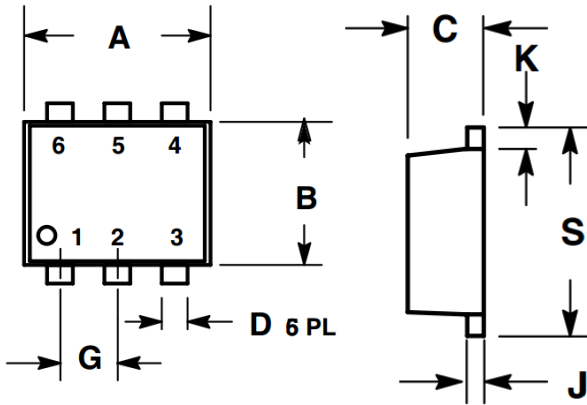
8 X 20 $\mu\text{s}$  Pulse Waveform



ESD Clamping Voltage

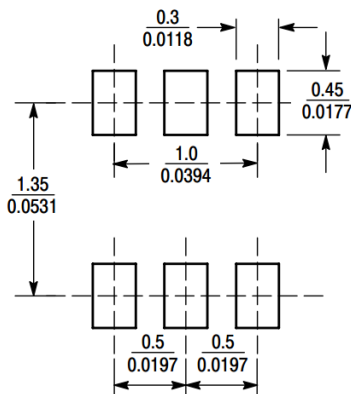
8 kV Contact per IEC61000-4-2

## SOT-563 Package Outline & Dimensions



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.70	0.059	0.067
B	1.10	1.30	0.043	0.051
C	0.50	0.60	0.020	0.024
D	0.17	0.27	0.007	0.011
G	0.50 BSC		0.020 BSC	
J	0.08	0.18	0.003	0.007
K	0.10	0.30	0.004	0.012
S	1.50	1.70	0.059	0.067

## Suggested Land Pattern



Unit: (mm)