

## Features

- Low operating voltage: 5V
- Ultra low capacitance: 0.3pF typical (I/O to I/O)
- Ultra low leakage: nA level
- Low clamping voltage
- -IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 20\text{kV}$   
Contact discharge:  $\pm 15\text{kV}$
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5(Lightning):3.0A(8/20 $\mu\text{s}$ )
- These are Pb-Free Devices
- Response Time is Typically < 1 ns

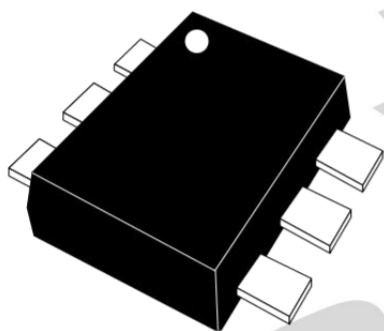
## Mechanical Characteristics

- Package: SOT-563
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- - IEC 61000-4-2 (ESD) immunity test

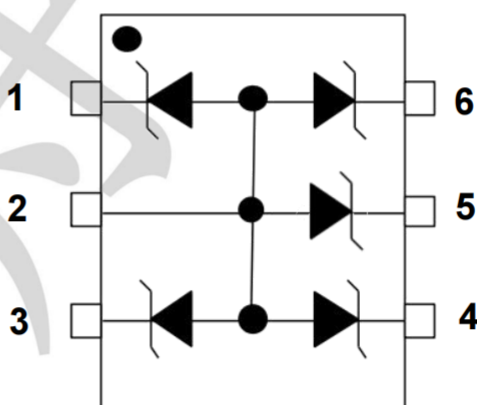
## Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Set-top boxes
- Notebooks and Handhelds

## Dimensions SOT-563



## Dimensions and Pin Configuration



Circuit and Pin Schematic

Marking:E2

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

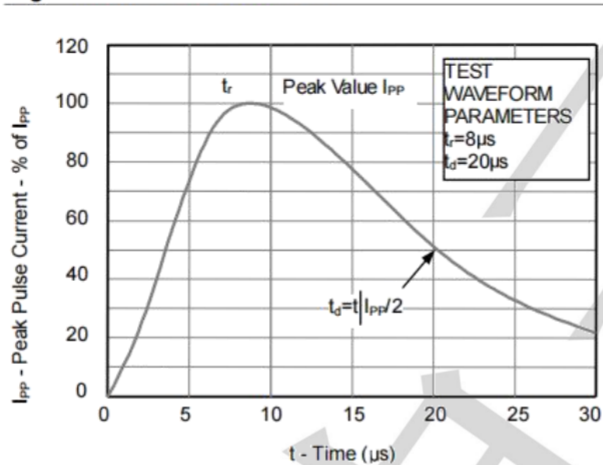
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	40	W
Peak Pulse Current (8/20μs)	Ipp	3.0	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±20 ±15	KV
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

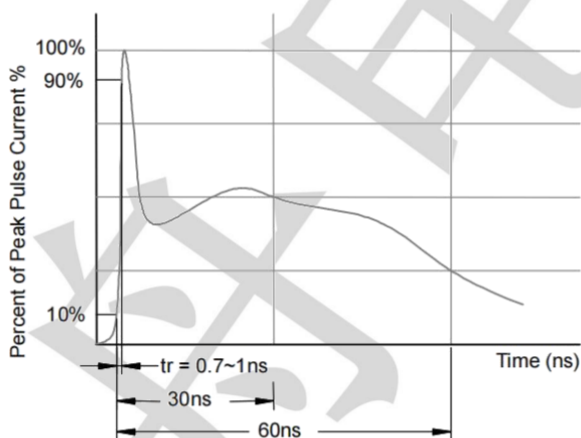
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	--	--	5	V	Any I/O pin to ground
Breakdown Voltage	VBR	--	6.5	--	V	IT= 1mA,Any I/O pin to ground
Reverse Leakage Current	IR	--	0.1	--	uA	VRWM=5V,Any I/O pin to ground
Clamping Voltage	VC	--	--	10	V	Ipp=1A(8x 20us pulse), Any I/O pin to ground
Clamping Voltage	VC	--	--	12	V	Ipp=3A(8x 20us pulse) ,Any I/O pin to ground
Forward Voltage	VF	--	--	1	V	IF = 10 mA
Junction Capacitance	Cvo-GND	--	0.5	--	pF	VR=0V,f=1MHz, Any I/O to GND
	Ci/o- I/O	--	0.3	0.6	pF	VR=0V,f=1MHz, between I/O pins

**Characteristic Curves**

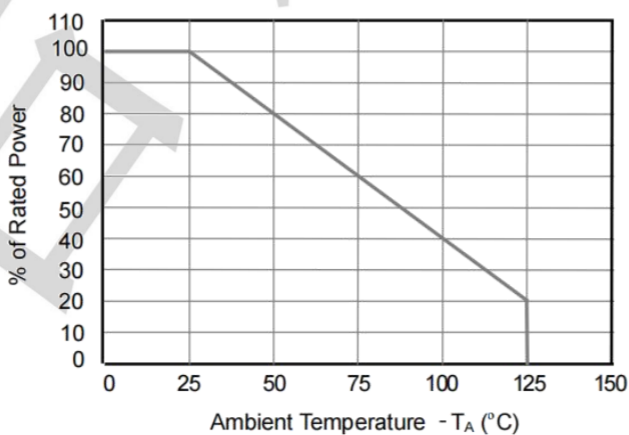
**Fig1. 8/20 $\mu$ s Pulse Waveform**



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

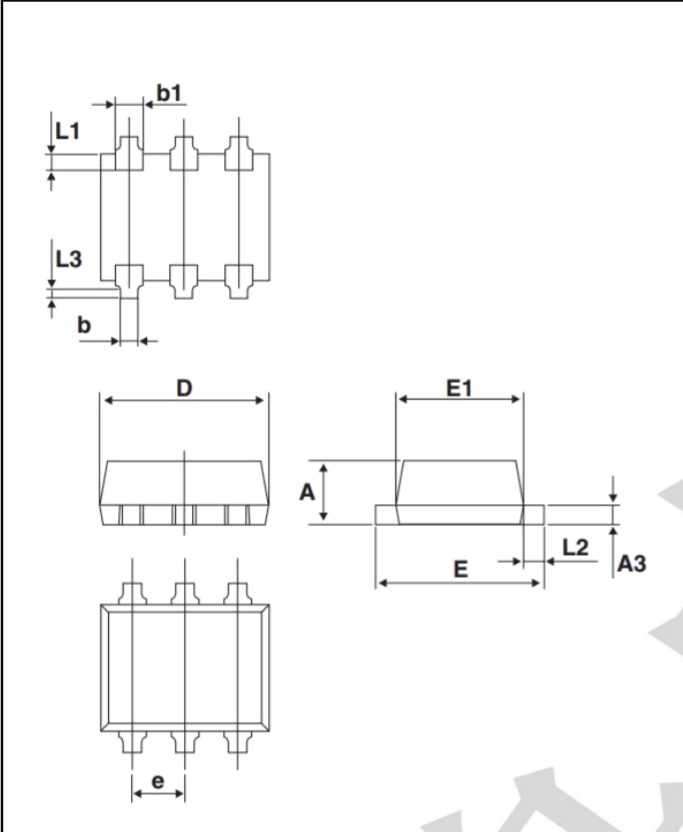


**Fig3. Power Derating Curve**



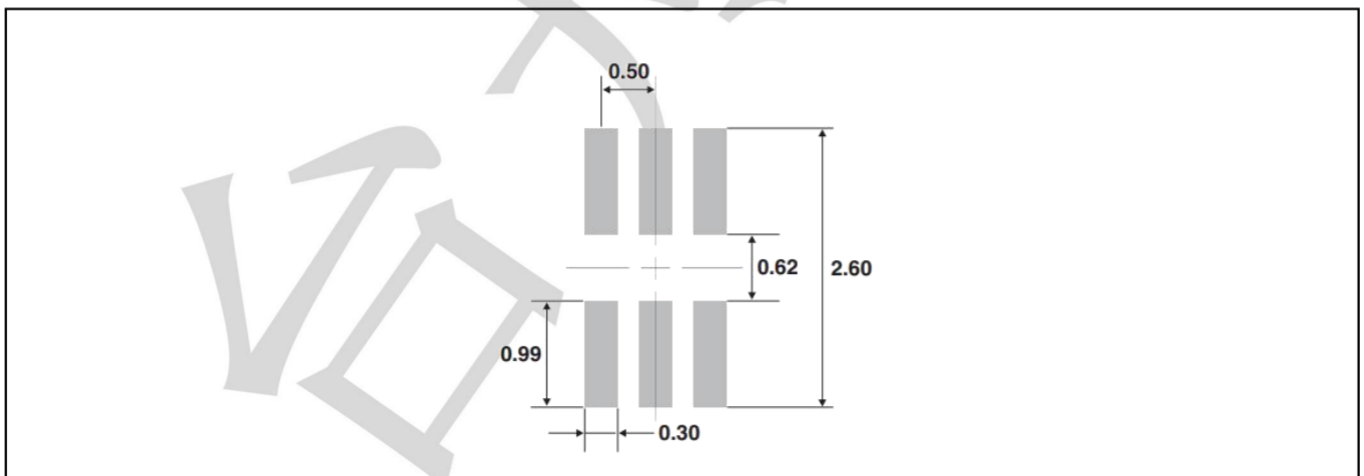
**Package Outline & Dimensions**

**SOT-563**



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.45		0.60	0.018		0.024
A3	0.08		0.18	0.003		0.007
b	0.17		0.34	0.007		0.013
b1	0.19	0.27	0.34	0.007	0.011	0.013
D	1.50		1.70	0.059		0.067
E	1.50		1.70	0.059		0.067
E1	1.10		1.30	0.043		0.051
e		0.50			0.020	
L1		0.19			0.007	
L2	0.10		0.30	0.004		0.012
L3		0.10			0.004	

**FOOT PRINT (millimeters)**



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:*

*Click to view products by [TECH PUBLIC](#) manufacturer:*

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE8.2A](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#)  
[SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS](#) [E6327](#) [ESD112-B1-02EL](#) [E6327](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-](#)  
[HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [SCM1293A-04SO](#)  
[ESD200-B1-CSP0201](#) [E6327](#) [SM12-7](#) [CEN955](#) [W/DATA](#) [VESD12A1A-HD1-GS08](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [ESD101-B1-02EL](#)  
[E6327](#) [AOZ8808DI-03](#) [5KP15A](#) [5KP48A](#) [5KP90A](#) [ESD3V3D7-TP](#) [15KPA36A-LF](#) [P4KE56CA](#) [P4KE68A](#) [P4KE91CATR](#) [P6KE120A](#)  
[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)