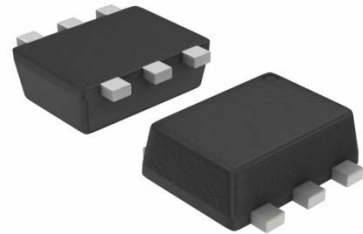
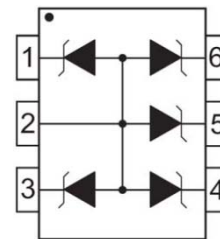


## Features

- 100W peak pulse power per line ( $t_P = 8/20\mu s$ )
- SOT-563 package
- Protects four bidirectional lines and five Unidirectional lines
- Monolithic structure
- Working voltage: 5V
- Low clamping voltage
- Low leakage current
- ESD protection > 40 kV
- RoHS compliant
- Transient protection to IEC 61000-4-2(ESD)  $\pm 15$  KV(air),  $\pm 8$ KV(contact); IEC 61000-4-4 (EFT) 40A (5/50ns)



**SOT-563**



**Schematic Diagram**

## Applications

- Communication systems & Cellular phones
- Printers
- Notebook and hand hold computers
- PDAs
- Video Equipment

## Absolute Maximum Ratings ( $T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu S$ )	$P_{PP}$	100	W
Peak Pulse Current ( $t_P = 8/20\mu S$ )	$I_{PP}$	10	A
Forward Voltage @10mA	$V_F$	1.5	V
Junction Temperature	$T_J$	-55 to +150	$^\circ C$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ C$

Note: Pin 1, 3, 4, 5 or 6 to Pin 2

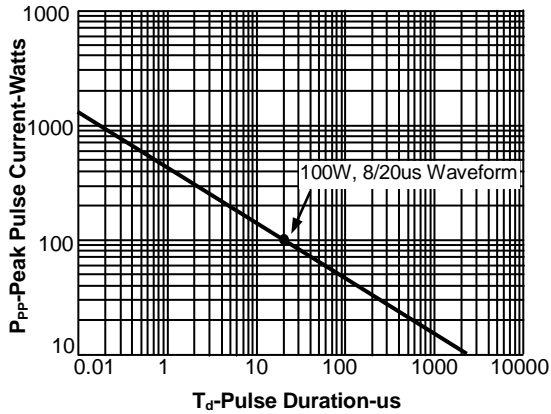
## Electrical Characteristics per line ( $T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6	-	-	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V$	-	-	5	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=1A, T_P=8/20\mu s$	-	-	8.8	V
Clamping Voltage	$V_C$	$I_{PP}=10A, T_P=8/20\mu s$	-	-	10.0	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$	-	30	-	pF

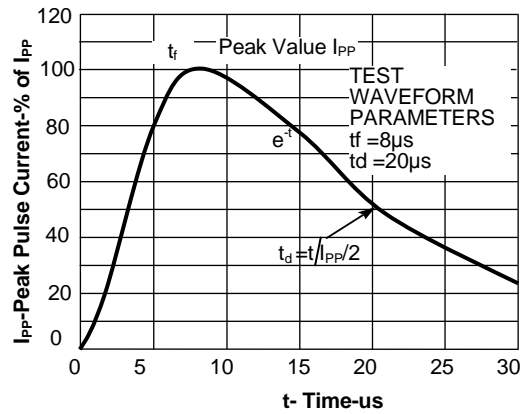
Note: Pin 1, 3, 4, 5 or 6 to Pin 2

**Typical Characteristic Curves**

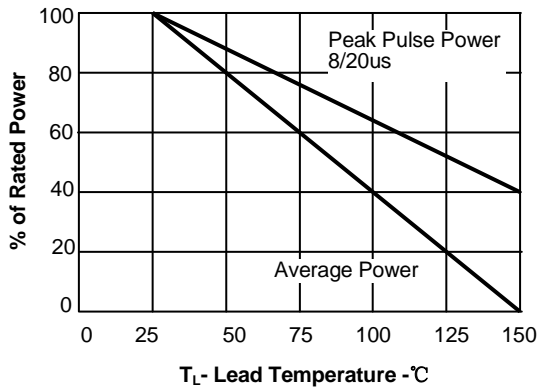
**Fig.1 Peak Pulse Power vs Pulse Time**



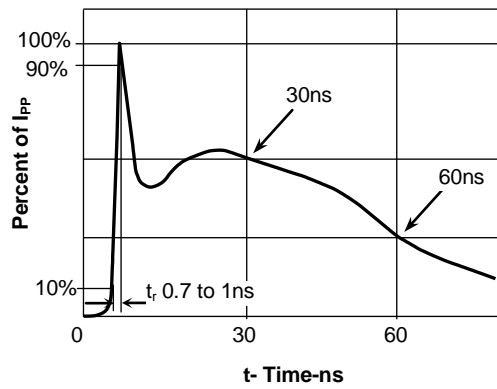
**Fig.2 Pulse Wave Form - 8/20us**



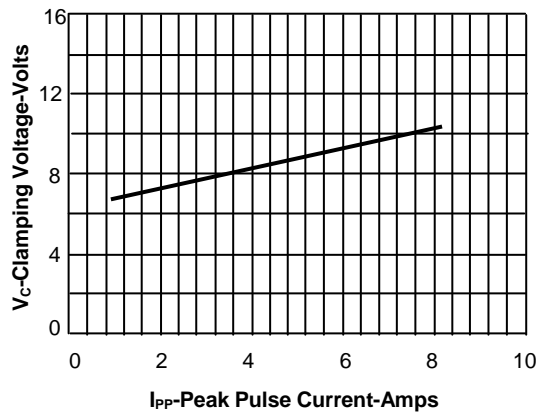
**Fig.3 Power Derating Curve**



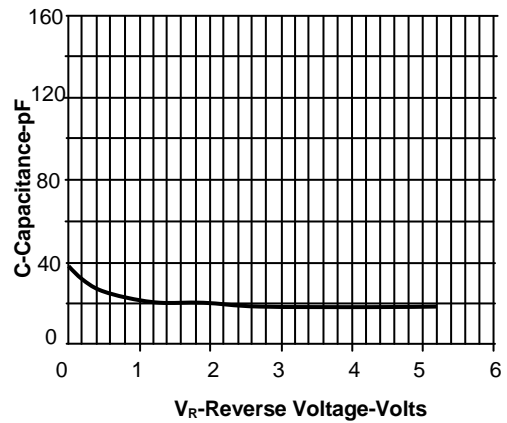
**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



**Fig.5 Typical Clamping Voltage vs Peak Pulse Current**

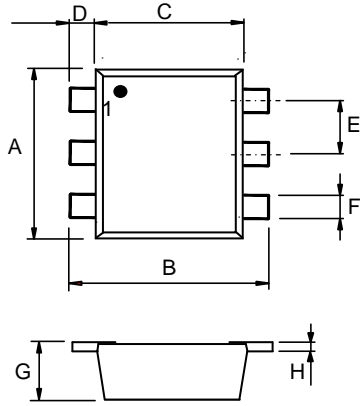


**Fig.6 Typical Reverse Voltage vs Capacitance**



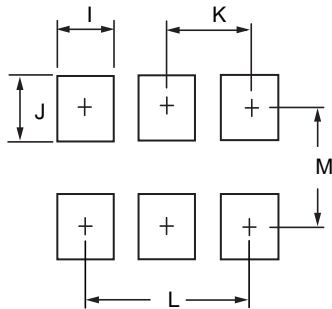
**Product Dimensions**

SOT-563



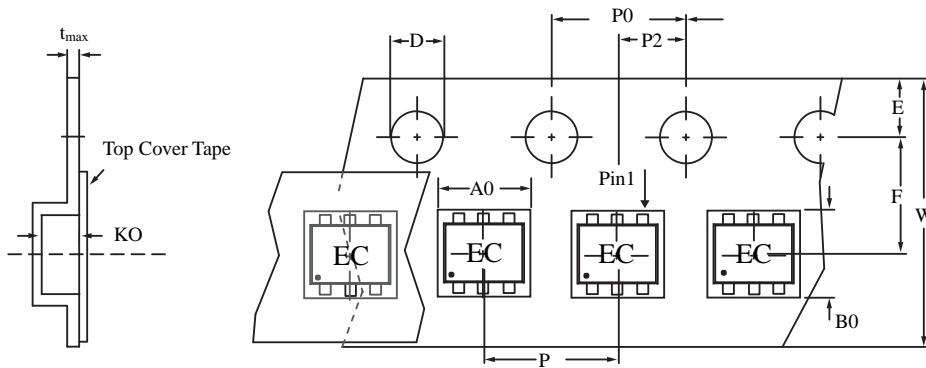
Dim	millimeters	
	min	max
A	1.50	1.70
B	1.50	1.70
C	1.10	1.30
D	0.10	0.30
E	0.50BSC	
F	0.17	0.27
G	0.50	0.60
H	0.08	0.16

**PAD Dimensions**



Dim	millimeters
I	0.30
J	0.51
K	0.51
L	1.02
M	1.40

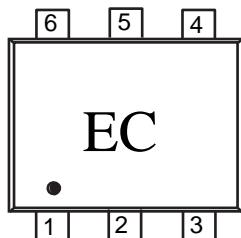
**Package Informations**



A0	B0	K0	D	E	F	W	P0	P2	P	tmax
1.78±0.05	1.78± 0.05	0.69±0.05	1.50±0.10	1.75±0.10	3.50±0.05	8.00±0.30	4.00± 0.10	2.00± 0.05	4.00± 0.10	0.25

NOTES: (1) Dimensions are in millimeters

## Marking



## Order Information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
SES5VT563-6	SOT-563	0.0030g	Tape & Reel	3000pcs	RoHS compliant