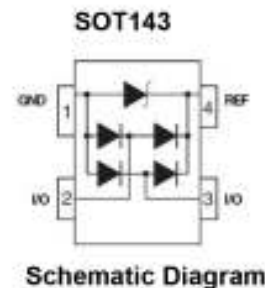


## Features

- 500W watts peak power per line ( $t_p = 8/20\mu s$ )
- ESD protection > 25 KV
- Low Clamping Voltage
- Unidirectional Configuration
- Protects 2 I/O Ports & Power Supply
- Low Capacitance , Typical : 5pF
- RoHS Compliant in Lead-Free Versions
- Molded JEDEC SOT-143
- Available in Lead-Free Pure-Tin Plating(Annealed)
- Solder Reflow Temperature:  
Pure-Tin-Sn , 100: 260- 270°C
- 8mm Tape and Reel Per EIA Standard 481

## Applications

- Ethernet -10/100 Base T
- FireWire
- Wireless Communications
- USB Interface



## Absolute Maximum Ratings

( $T_A=25^\circ C$  , Unless otherwise specified.)

Rating	Symbols	Value	Units
Peak Pulse Power( $t_p=8/20\mu s$ )	$P_{pp}$	500	W
Peak Forward voltage @ 1A	$V_F$	1.5	V
Operating Temperature	$T_J$	-55 to +150	$^\circ C$
Storage temperature	$T_{STG}$	-50 to +150	$^\circ C$

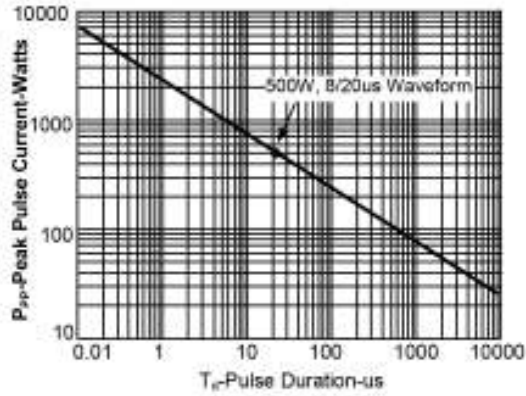
## Electrical Characteristics per line

( $T_A=25^\circ C$  , Unless otherwise specified.)

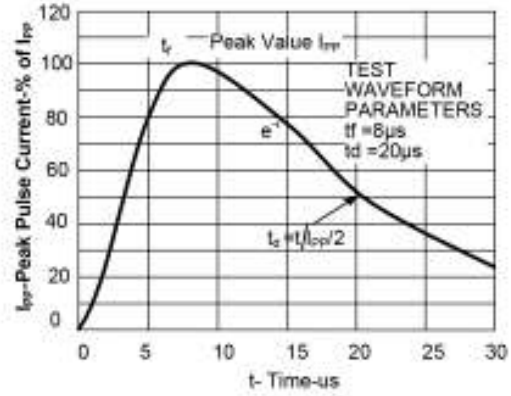
Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6			V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V$			5	$\mu A$
Clamping Voltage	$V_C$	$I_{pp}=1A, T_p=8/20\mu s$			9.8	V
Clamping Voltage	$V_C$	$I_{pp}=28A, T_p=8/20\mu s$			20.0	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		5		pF

## Typical Characteristics

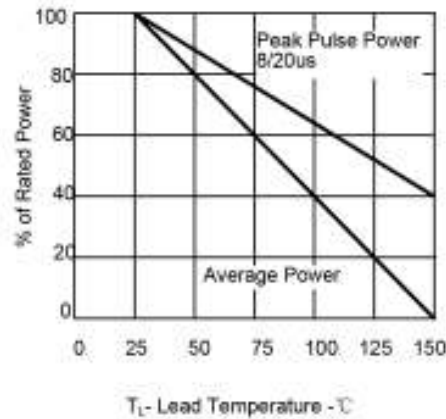
**Fig.1 Peak Pulse Power vs Pulse Time**



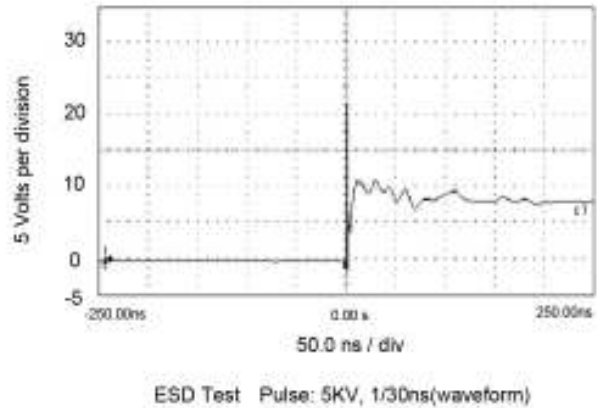
**Fig.2 Pulse Wave Form**



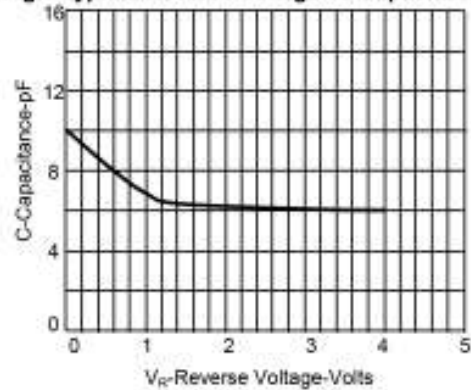
**Fig.3 Power Derating Curve**



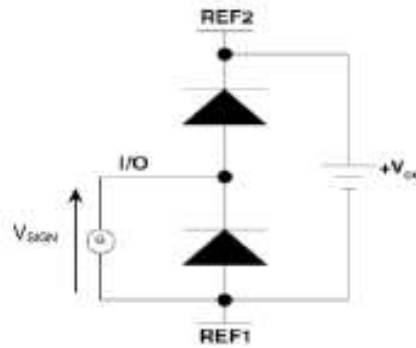
**Fig.4 Overshoot & Clamping Voltage**



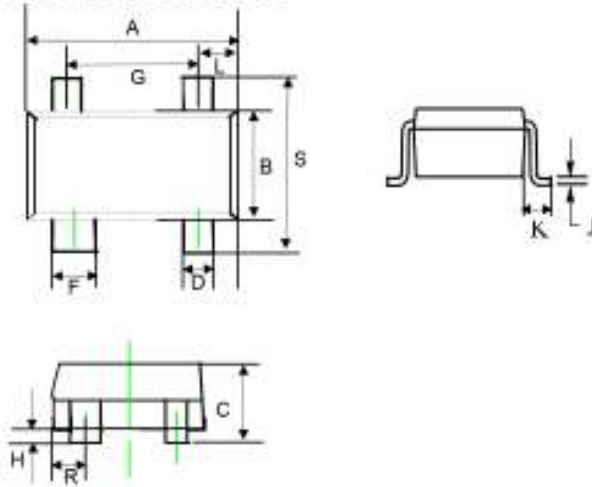
**Fig.5 Typical Reverse Voltage vs Capacitance**



**Fig.6 Input Capacitance Circuit**

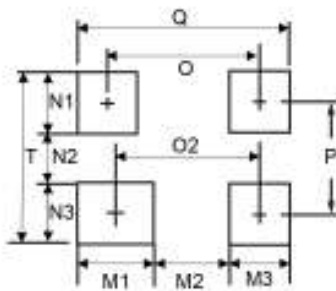


**Product Dimensions**

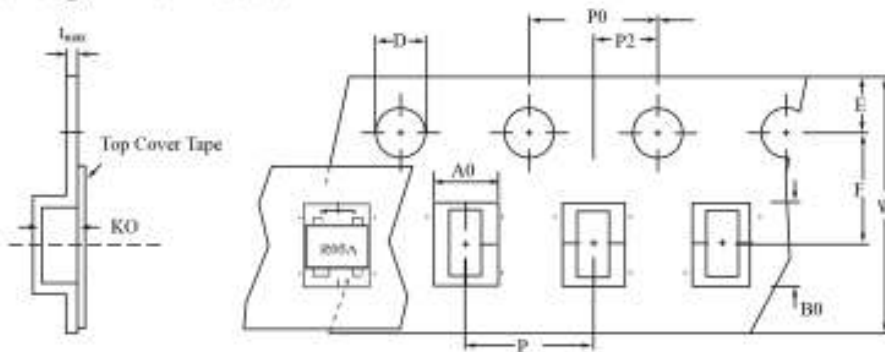


Dim	millimeters	
	min	max
A	2.80	3.04
B	1.20	1.39
C	0.84	1.14
D	0.39	0.50
F	0.79	0.93
G	1.78	2.03
H	0.013	0.10
J	0.08	0.15
K	0.46	0.60
L	0.445	0.60
R	0.72	0.83
S	2.11	2.48
N1	0.85	
N2	1.05	
N3	0.85	
M1	1.20	
M2	0.80	
M3	0.85	
O	2.00	
O2	1.80	
P	1.90	
Q	2.85	
T	2.75	

**PAD Dimensions**



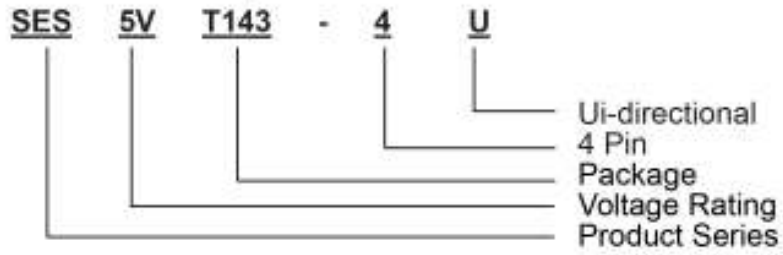
**Package Information**



Unit:mm

A0	B0	K0	D	E	F	W	P0	P2	P	tmax
3.10±0.10	2.70± 0.10	1.35±0.10	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

### Part Number System



### Marking



### Order Information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
SES5VT143-4U	SOT143	0.0086g	Tape & Reel	3000pcs	RoHS compliant