



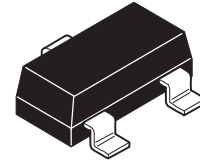
### Features

- 300 Watts peak pulse power ( $t_P = 8/20\mu s$ )
- SOT-23 package
- Protects one bidirectional or two unidirectional lines
- Fast response time, typically  $< 1\text{ ns}$
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 15\text{kV}$  (Air) ESD protection
- IEC 61000-4-2  $\pm 8\text{kV}$  (Contact) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant

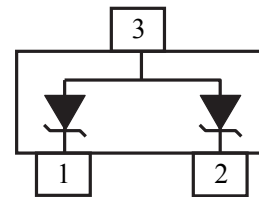
### Applications

- Cellular Handsets and Accessories
- Portable Electronics
- Control & Monitoring Systems
- Servers, Notebooks, and Desktop Pcs
- Set-Top Box
- Communication Systems

### SES12VT23-3



SOT-23



Schematic Diagram

### Absolute Maximum Ratings

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

Rating	Symbols	Value	Units
Peak Pulse Power ( $t_P=8/20\mu s$ )	$P_{PP}$	300	W
Operating Temperature	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-50 to +150	$^\circ\text{C}$

### Electrical Characteristics

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

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off Voltage	$V_{RWM}$				12	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	13.3		16.5	V
Reverse Leakage Current	$I_R$	$V_R=12\text{V}$			1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}, T_P=8/20\mu s$			16	V
Clamping Voltage	$V_C$	$I_{PP}=10\text{A}, T_P=8/20\mu s$			28	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$		60		pF



### Typical Characteristic Curves

Fig.1 Peak Pulse Power vs Pulse Time

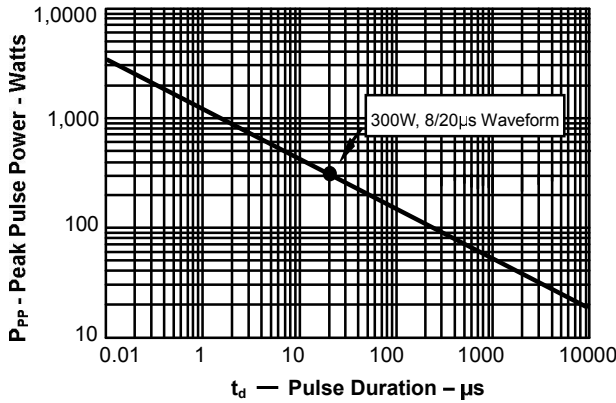


Fig.2 Pulse WaveForm-8/20µs

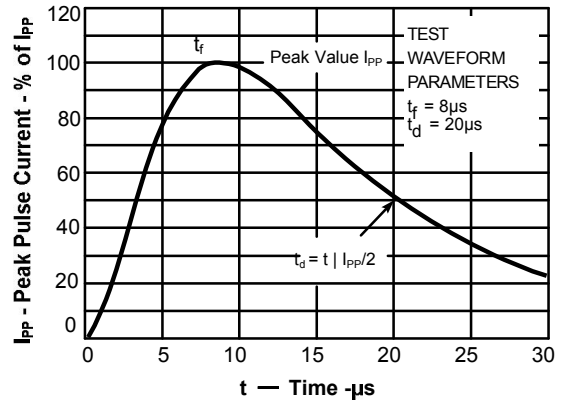


Fig.3 Power Derating Curve

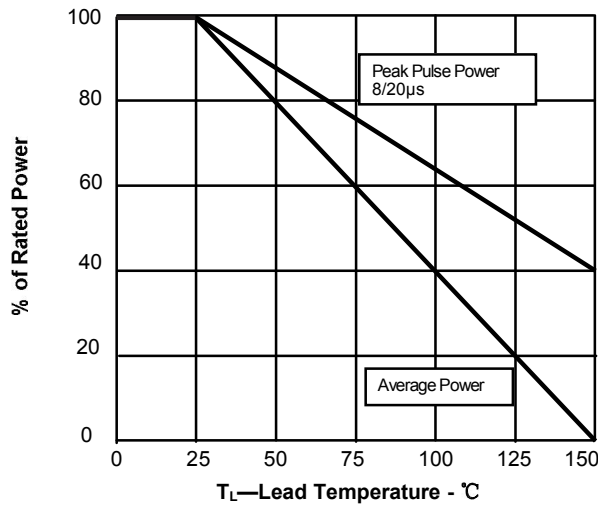
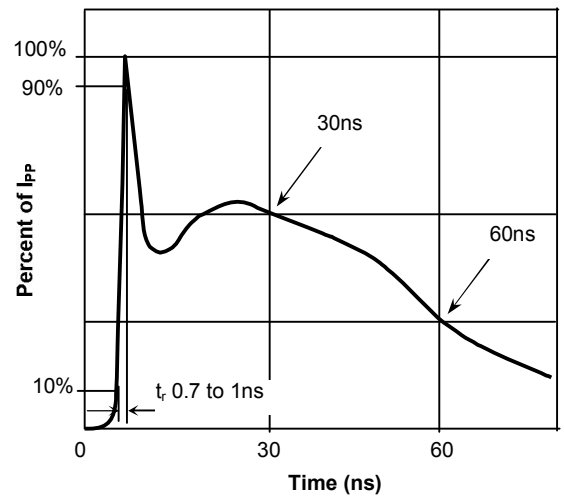
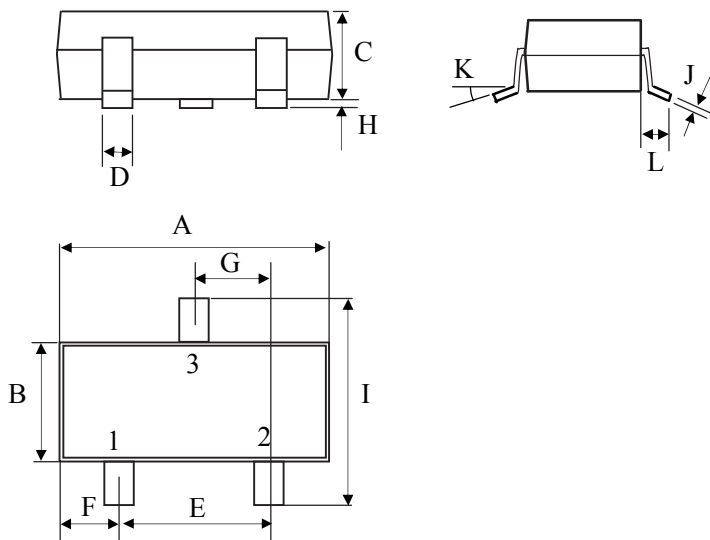


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



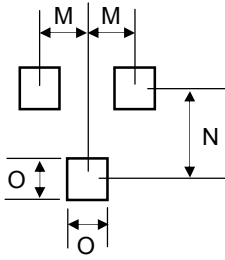
### Product Dimensions



Dim	millimeters	
	min	max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
E	1.78	2.04
F	0.45	0.60
G	0.89	1.02
H	0.013	0.100
I	2.10	2.50
J	0.085	0.177
K	0°	10°
L	0.45	0.60

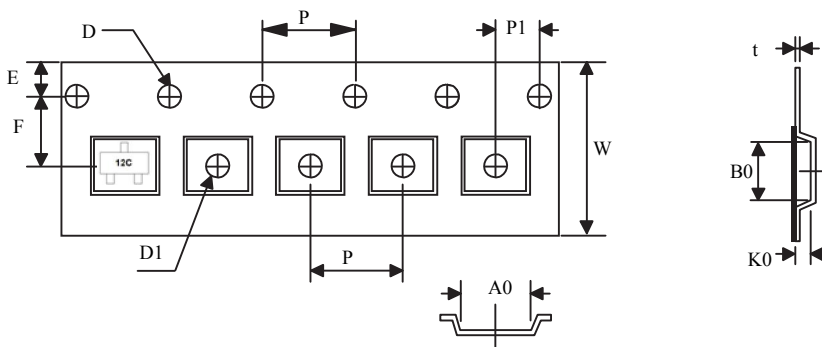


### PAD Dimensions



Dim	millimeters
O	0.85
M	0.95
N	2.00

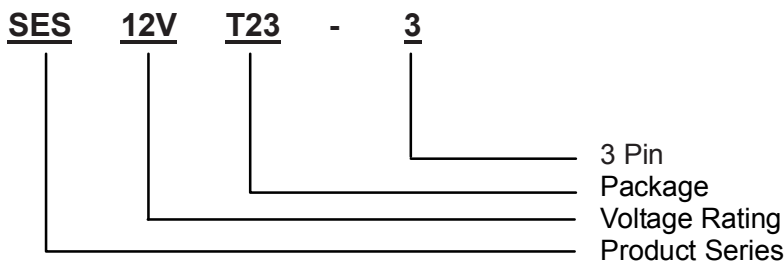
### Package Information



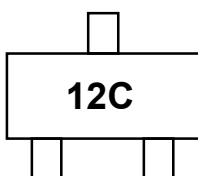
Unit:mm

A0	B0	K0	D1	D	E	F	W	P	P1	t
3.15±0.10	2.77± 0.10	1.22±0.10	0.95~1.10	1.50~1.60	1.75±0.10	3.50±0.05	7.90~8.3	4.00± 0.10	2.00± 0.05	0.22± 0.40

### Part Number System



### Marking





### Order Information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
SES12VT23-3	SOT-23	0.0090g	Tape & Reel	3000pcs	RoHS compliant

### Revision history

Date	Revision	Description of changes
12-November-2012	A0	First issue