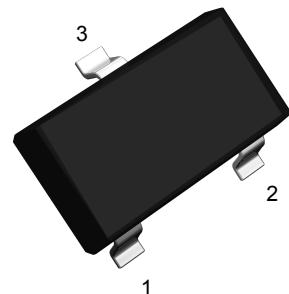


## Features

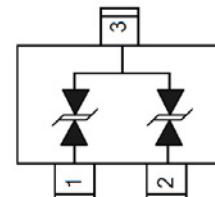
- 250 Watts peak pulse power ( $t_P = 8/20\mu s$ )
- SOT-23 package
- Protects two bidirectional lines
- Fast response time, typically < 1 ns
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 20kV$  (Air) ESD protection
- IEC 61000-4-2  $\pm 15kV$  (Contact) ESD protection
- IEC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



**Package: SOT-23**

## Applications

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



**Schematic Diagram**

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu s$ )	$P_{PP}$	250	W
Peak Pulse Current ( $T_P = 8/20\mu s$ )	$I_{PP}$	5	A
Junction Temperature	$T_J$	-55 to +125	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ C$

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

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off Voltage	$V_{RWM}$	-	-	-	24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	26.7	-	-	V
Reverse Leakage Current	$I_R$	$V_R=24V$	-	-	1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=5A, T_P=8/20\mu s$	-	-	40	V
Junction Capacitance	$C_J$	(pin1,2 to pin3) $V_R=0V, f=1MHz$	-	15	-	pF



STEIF POWER  
TECHNOLOGY

SPES24VT23-3B

**ESD Protection Diode**

## Typical Characteristic Curves

Fig.1 Peak Pulse Power vs Pulse Time

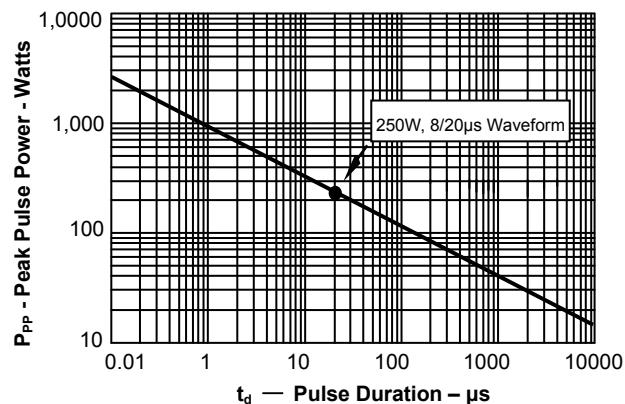


Fig.2 Pulse Waveform-8/20μs

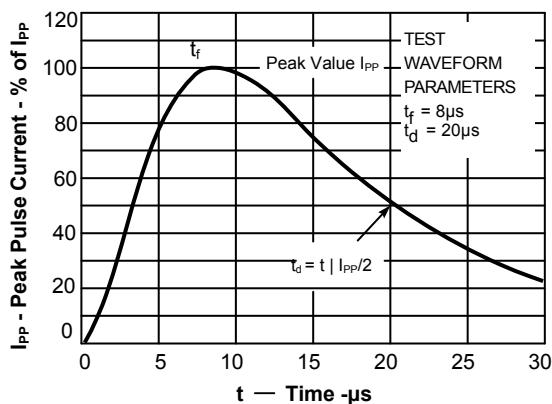


Fig.3 Power Derating Curve

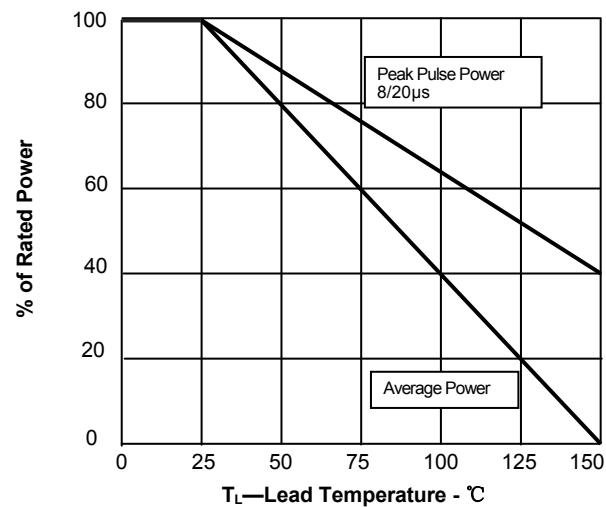
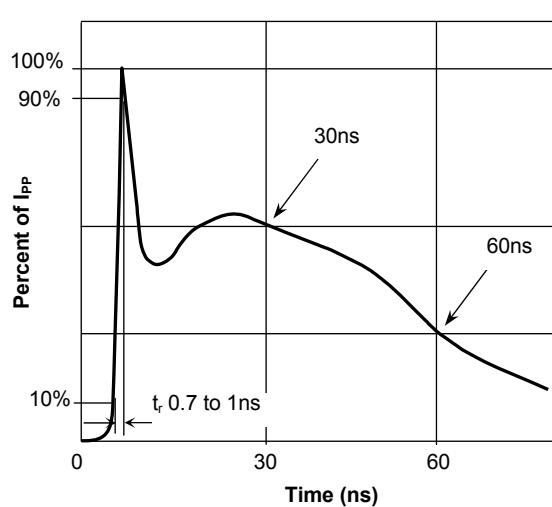
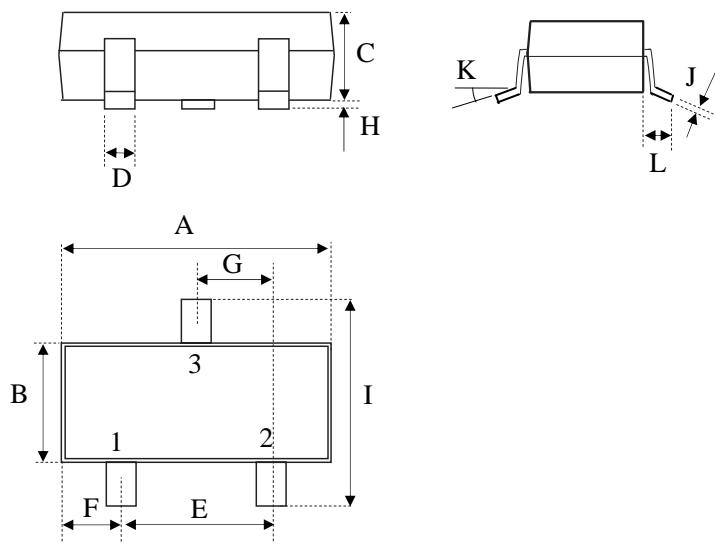


Fig.4 Pulse Waveform-ESD (IEC61000-4-2)

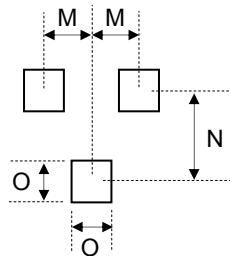


## Product Dimensions



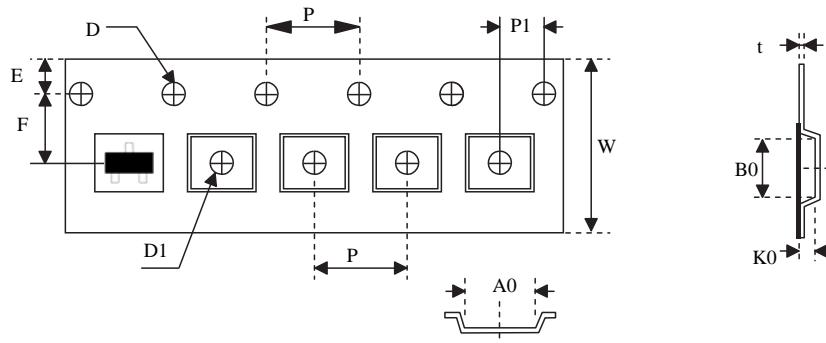
Dim	millimeters	
	min	max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
E	1.78	2.04
F	0.45	0.60
G	0.89	1.02
H	0.013	0.100
I	2.10	2.50
J	0.085	0.177
K	0°	10°
L	0.45	0.60

### 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