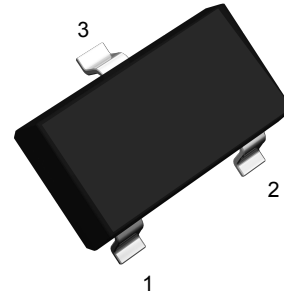
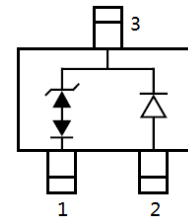


## Features

- 500 Watts peak pulse power ( $t_P = 8/20\mu s$ )
- SOT-23 package
- Low capacitance
- Fast response time, typically  $< 1$  ns
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 15kV$  (Air) ESD protection
- IEC 61000-4-2  $\pm 8kV$  (Contact) ESD protection
- IEC 61000-4-5 24A (8/20 $\mu s$ ) Lightning protection
- RoHS compliant



**Package: SOT-23**



**Schematic Diagram**

## Applications

- Cellular Handsets and Accessories
- Portable Electronics
- Fire wire
- Servers, Notebooks, and Desktop Pcs
- LAN/WAN equipment
- High speed data lines

## 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 Pulse Current ( $t_P=8/20\mu S$ )	$I_{PP}$	24	A
Operating Temperature	$T_J$	-55 to +150	$^\circ C$
Storage temperature	$T_{STG}$	-50 to +150	$^\circ C$

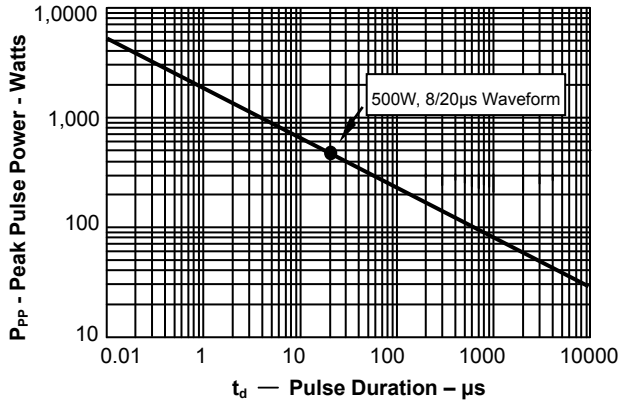
## Electrical Characteristics

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

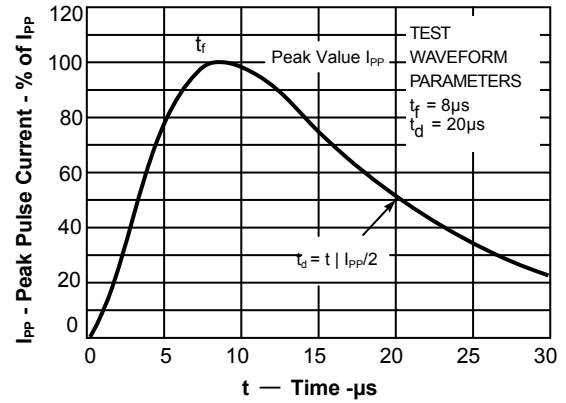
Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse stand-off Voltage	$V_{RWM}$	-	-	-	2.8	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	3	4	-	V
Reverse Leakage Current	$I_R$	$V_{RWM}=2.8V$	-	-	1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=5A, T_P=8/20\mu S$	-	-	8.5	V
Clamping Voltage	$V_C$	$I_{PP}=24A, T_P=8/20\mu S$	-	-	21	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$ (pin1-2)	-	3.5	-	pF

## Typical Characteristic Curves

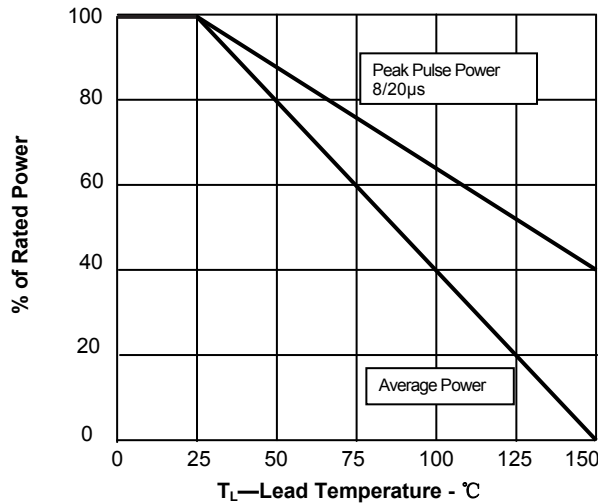
**Fig.1 Peak Pulse Power vs Pulse Time**



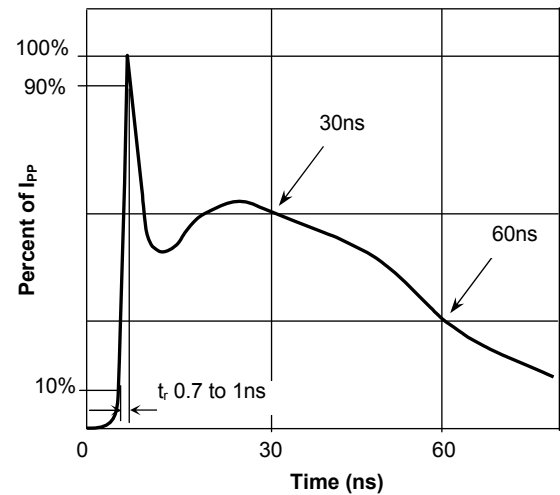
**Fig.2 Pulse WaveForm-8/20μs**



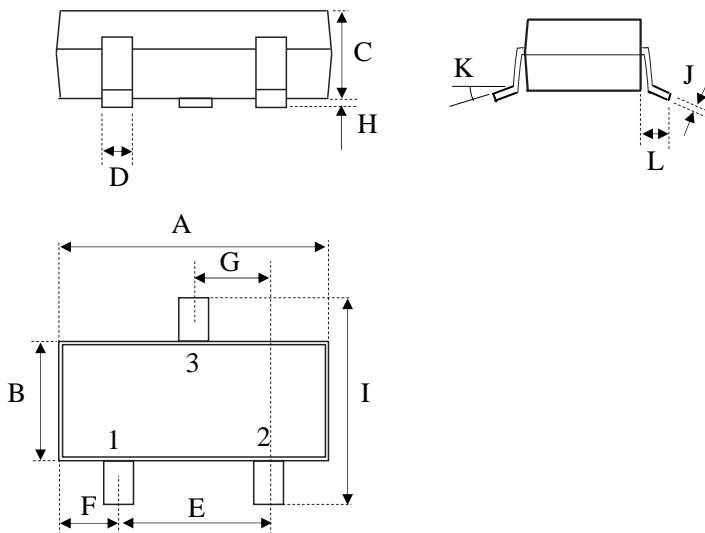
**Fig.3 Power Derating Curve**



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

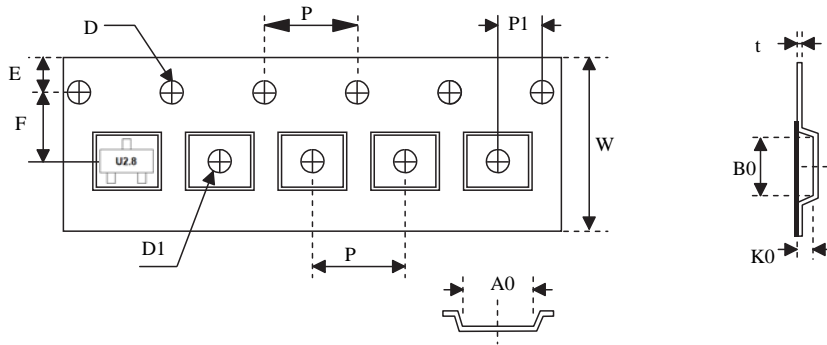


## Product Dimensions



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

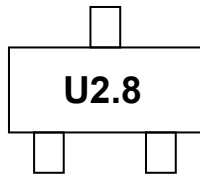
### Package Information



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

### Marking



### Order Information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
SPESP2V8T23-3U	SOT-23	0.0090g	Tape & Reel	3000pcs	RoHS compliant