

## Features

- 50W peak pulse power ( $t_p = 8/20\mu s$ )
- SOD-523 package
- Fast response time
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2  $\pm 25kV$  (Air) ESD protection
- IEC 61000-4-2  $\pm 25kV$  (Contact) ESD protection
- JESD22-A114-B  $\pm 16kV$  (Human Body Model)
- RoHS compliant



**SOD-523**



**Schematic Diagram**

## Applications

- Subscriber identity module(SIM) card protection
- Portable devices
- Computers and peripherals
- Communications Equipments

## Absolute Maximum Ratings

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

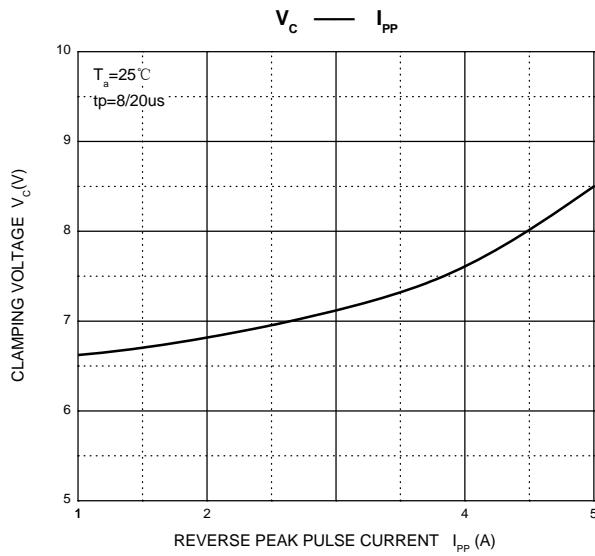
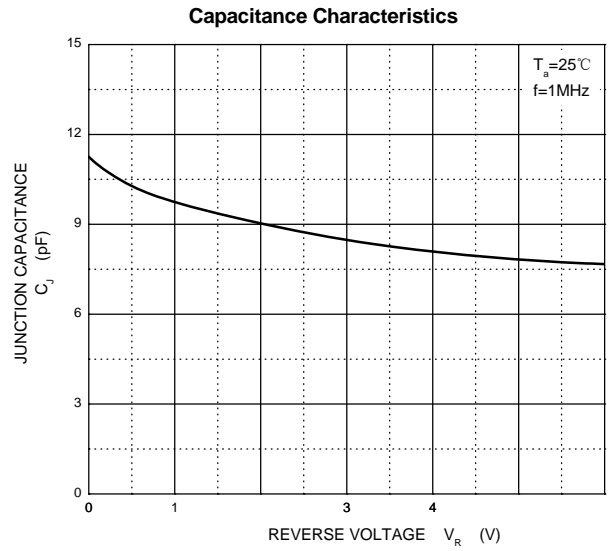
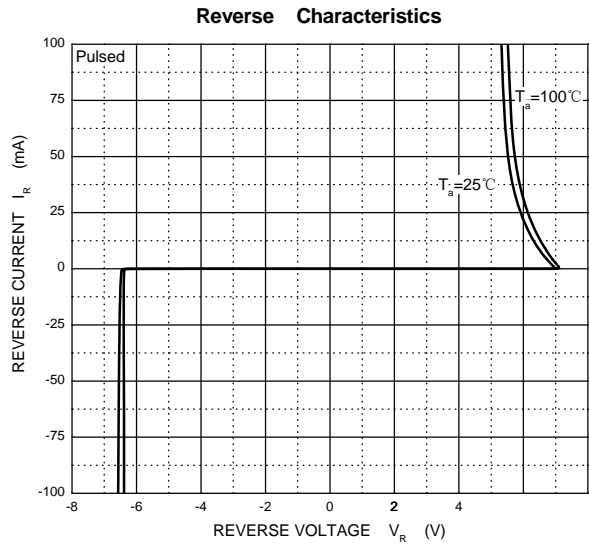
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P = 8/20\mu S$ )	$P_{PP}$	50	W
Peak Pulse Current ( $T_P = 8/20\mu S$ )	$I_{PP}$	5	A
Operating temperature	$T_J$	150	$^\circ C$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ C$

## Electrical Characteristics

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

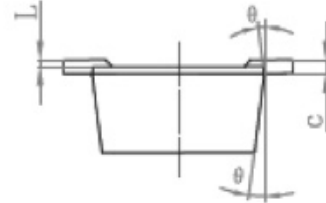
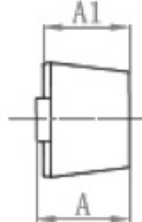
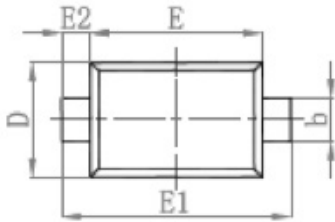
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Stand-off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	5.8	-	8.3	V
Reverse Leakage Current	$I_R$	$V_R = 5V$	-	-	0.1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 5A, T_P = 8/20\mu S$	-	-	10	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$	-	12	15	pF

### Typical Characteristic Curves



**Package Outline Dimensions**

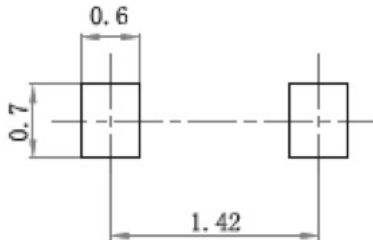
**SOD-523**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

**Suggested Pad Layout**

**SOD-523**



Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

**Marking**



**Order Information**

Device	Package	Net Weight	Carrier	Quantity	HSF Status
SPESLC5VD523-2B	SOD-523	0.0014g	Tape & Reel	3000pcs / Reel	RoHS compliant