

## DESCRIPTION

The SESD5Z Series is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium

## FEATURES

- >Small Body Outline Dimensions
- >Low Body Height
- >Stand-off Voltage: 2.5V-12V
- >Peak Power up to 200 Watts@8x20us Pulse
- >Low Leakage
- >Response Time is Typically<1 ns
- >ESD Rating of Class 3 (>16KV) per Human Body Model
- >IEC61000-4-2 Level 4 ESD Protection
- >IEC61000-4-4 Level 4 EFT Protection
- >We declare that the material of product compliance with RoHS requirements

## APPLICATIONS

- >Cellular phones
- >Portable devices
- >Digital cameras
- >Power supplies

## IEC COMPATIBILITY

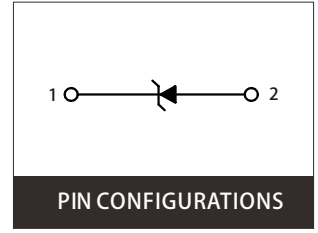
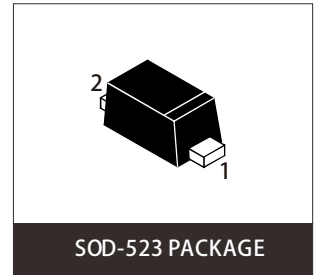
- >IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)

## MAXIMUM RATINGS @ 25° C UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20μs waveform)	PPP	200	Watts
Maximum lead temperature for soldering during 10s	TL	260	°C
Maximum junction temperature	TJ	150	°C
Storage Temperature Range	TSTG	-55~150	°C

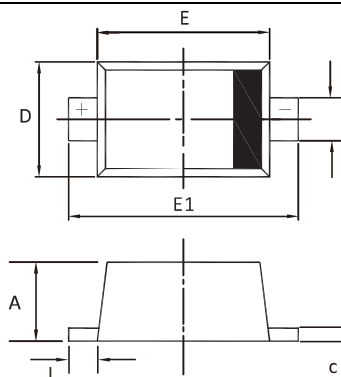
## ELECTRICAL CHARACTERISTICS PER LINE @ 25° C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	VRWM (V) Max.	VBR (V) Min.	IT (mA)	Vc @5A Typ.	Vc		IR (uA) Max.	CT (pF) Typ.
						Max.	@A		
SESD5Z2.5T1G	ZD	2.5	4.0	1	6.5	10.9	11.0	6.0	145
SESD5Z3.3T1G	ZE	3.3	5.0	1	8.4	14.1	11.2	1.0	105
SESD5Z5.0T1G	ZF	5.0	6.2	1	11.6	18.6	9.4	1.0	80
SESD5Z6.0T1G	ZG	6.0	6.8	1	12.4	20.5	8.8	1.0	70
SESD5Z7.0T1G	ZH	7.0	7.5	1	13.5	22.7	8.8	1.0	65
SESD5Z12T1G	ZM	12.0	13.5	1	17.0	25.0	9.6	1.0	55



**SOD-523 PACKAGE INFORMATION**

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
C	0.070	0.200	0.003	0.008
D	0.700	0.900	0.028	0.035
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
L	0.150	0.250	0.006	0.010



**SOLDERING FOOTPRINT**

The diagram illustrates the recommended soldering footprint for the SOD-523 package. It shows two rectangular pads. The distance between the centers of the pads is 1.40 mm (0.0547 inches). Each pad has a width of 0.40 mm (0.0157 inches) and a length of 0.40 mm (0.0157 inches).

**Notes:**  
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

SCALE 10:1 (  $\frac{\text{mm}}{\text{inches}}$  )

**ENVIRONMENTAL CHARACTERISTICS**

Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature: 150 $\pm$ 3°C; Bias=80%V <sub>DRM</sub> ; Time: 168H
High Temperature Life Test	Temperature: 150°C; Time: 168H
High-Low Temperature Cycle Test	Temperature: From -40°C to 150°C; Dwell Time: 30min, 10-100 Cycles
High Temperature & High Humidity Test	Temperature: 85°C; Humidity: 85%; Time: 168H
Pressure Cooker Test	Temperature: 121°C, 2 atm; Humidity: 100%; Time: 24H To 168H
Resistance Of Soldering Heat	Temperature: 260 $\pm$ 5°C; Time Of Dip Soldering: 10s, 3 Times

**ORDERING INFORMATION**

Part Number	Component Package	QTY/Reel	Reel Size
SESD5ZxxT1G	SOD523	3000PCS	7"

## **CONTACT US**

### **Headquarters**

Room 43A, Block C, E lectronic and Technology Building, Shennan Road, Futian District, Shenzhen  
China

### **Hotline**

+86-0755-83239646

### **Web**

[Http://www.szshaoxin.com](http://www.szshaoxin.com)

### **By Telephone**

General: +86-0755-83239646

### **By Fax**

+86-0755-83239644

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