



## SSCZ5V1HD2

### Zener Voltage Regulator

#### ● Description

The SSCZ5V1HD2 is packaged in a SOD-323 surface mount package that has a power dissipation of 500mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium. It is applicable to mobile phones, hand-held portable devices, high-density PC boards.

#### ● Feature

- ✧ Standard zener breakdown voltage range 5.1V
- ✧ SOD-323 package
- ✧ Steady state power rating of 500mW
- ✧ RoHS compliant transient

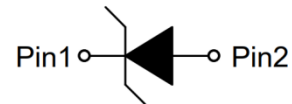
#### ● Applications

- ✧ Hand held portables
- ✧ Cellular phones
- ✧ High density PC boards

#### ● PIN configuration



**SOD-323**



**Circuit diagram**



**Marking(Top View)**

#### ● Mechanical data

- ✧ Lead finish:100% matte Sn(Tin)
- ✧ Mounting position: Any
- ✧ Qualified max reflow temperature:260°C
- ✧ Device meets MSL 3 requirements
- ✧ Pure tin plating: 7 ~ 17 um
- ✧ Pin flatness:≤3mil



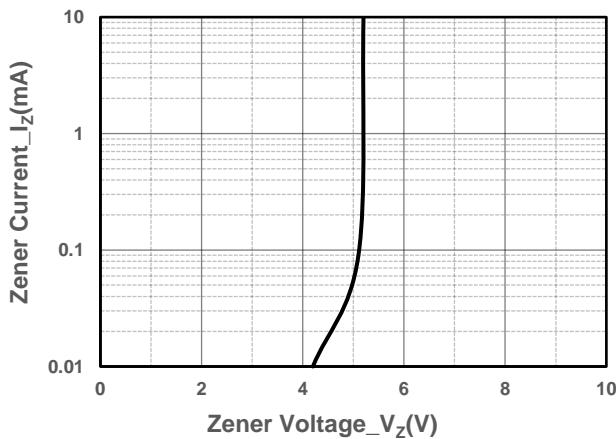
● **Absolute maximum rating @T<sub>A</sub>=25°C**

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	P <sub>D</sub>	500	mW
Thermal Resistance, Junction-to-Ambient	R <sub>θJA</sub>	340	°C/W
Storage Temperature	T <sub>STG</sub>	-55/+125	°C
Operating Temperature	T <sub>J</sub>	125	°C

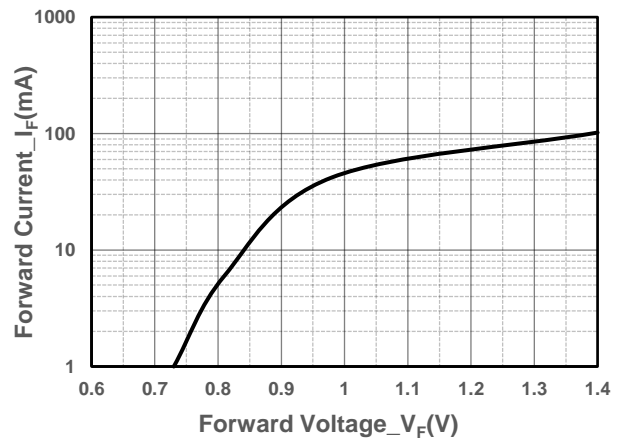
● **Electrical Characteristics @T<sub>A</sub>=25°C**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Zener Voltage	V <sub>Z</sub>	I <sub>ZT</sub> = 5mA	4.8	5.1	5.4	V
Maximum Zener Impedance	Z <sub>ZT</sub>	I <sub>ZT</sub> = 5mA			60	Ω
Maximum Zener Impedance	Z <sub>ZK</sub>	I <sub>ZK</sub> = 1mA			480	Ω
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =2V			2	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10mA			0.9	V

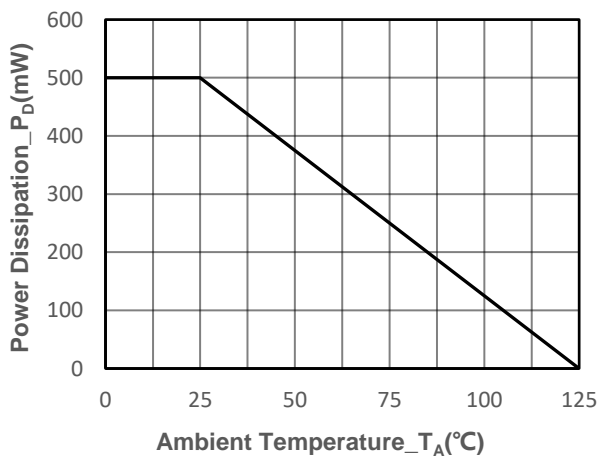
● **Typical Performance Characteristics**



Zener Current vs. Zener Voltage



Forward Current vs. Forward Voltage



Power Derating vs. Ambient Temperature



## ● Package Information

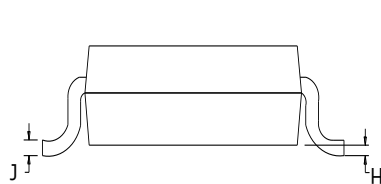
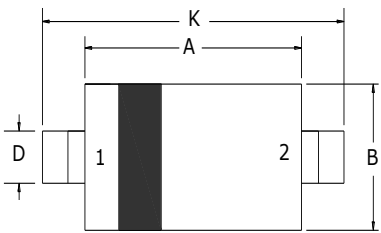
### Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZ5V1HD2	SOD-323	3000	7 Inch

### Mechanical Data

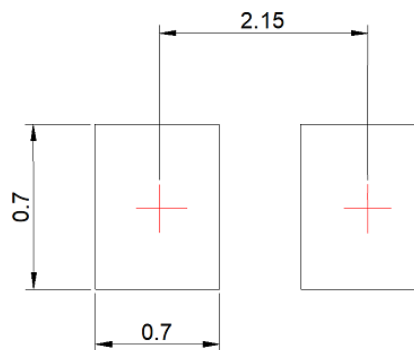
Case:SOD-323

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters	
	Min	Max
A	1.60	1.80
B	1.2	1.40
C	0.80	0.90
D	0.25	0.35
E	0.15REF	
H	0	0.10
J	0.08	0.15
K	2.50	2.70

### Recommended Pad outline (Unit:mm)





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