



SSCZ5V1HD1

Zener Voltage Regulator

- **Description**

The SSCZ5V1HD1 is packaged in a SOD-123 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-123 package
- ✧ Steady state power rating of 500mW
- ✧ RoHS compliant transient

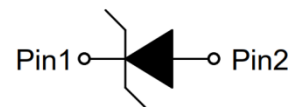
- **Applications**

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

- **PIN configuration**



SOD-123



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



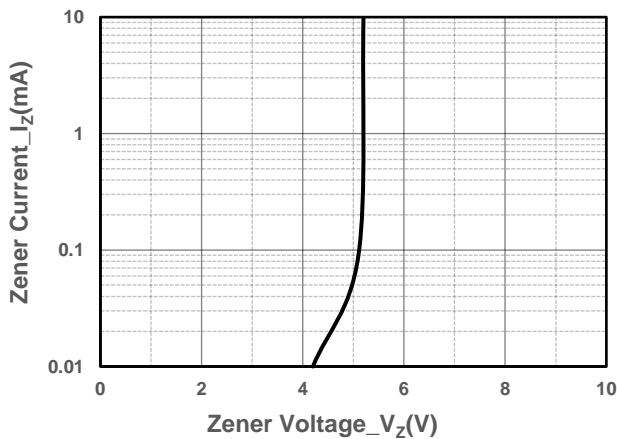
- **Absolute maximum rating @ $T_A=25^{\circ}\text{C}$**

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	P_D	500	mW
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	340	$^{\circ}\text{C}/\text{W}$
Storage Temperature	T_{STG}	-55/+125	$^{\circ}\text{C}$
Operating Temperature	T_J	125	$^{\circ}\text{C}$

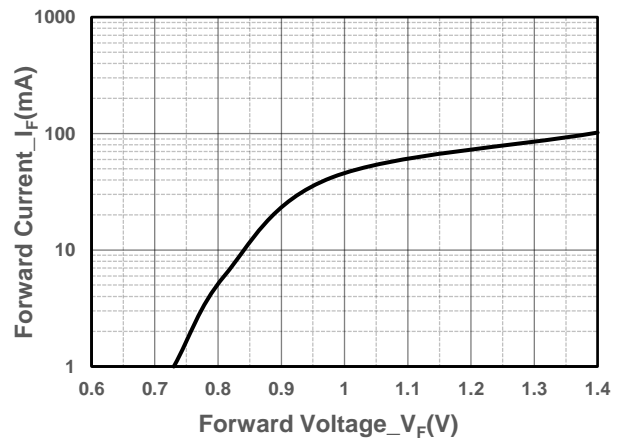
- **Electrical Characteristics @ $T_A=25^{\circ}\text{C}$**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Zener Voltage	V_Z	$I_{ZT} = 5\text{mA}$	4.8	5.1	5.4	V
Maximum Zener Impedance	Z_{ZT}	$I_{ZT} = 5\text{mA}$			60	Ω
Maximum Zener Impedance	Z_{ZK}	$I_{ZK} = 1\text{mA}$			480	Ω
Reverse Leakage Current	I_R	$V_R = 2\text{V}$			2	μA
Forward Voltage	V_F	$I_F = 10\text{mA}$			0.9	V

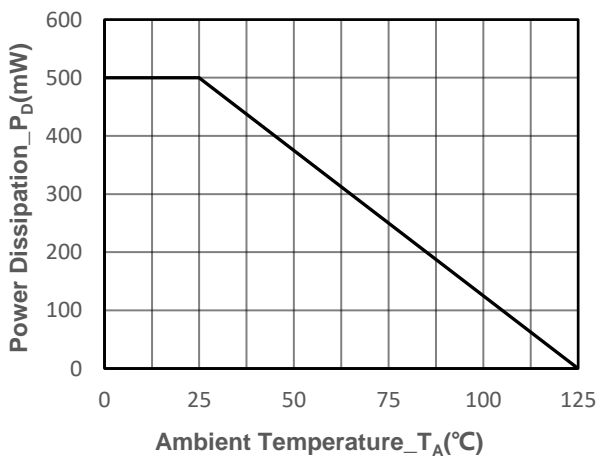
- **Typical Performance Characteristics**



Zener Current vs. Zener Voltage



Forward Current vs. Forward Voltage



Power Derating vs. Ambient Temperature



● Package Information

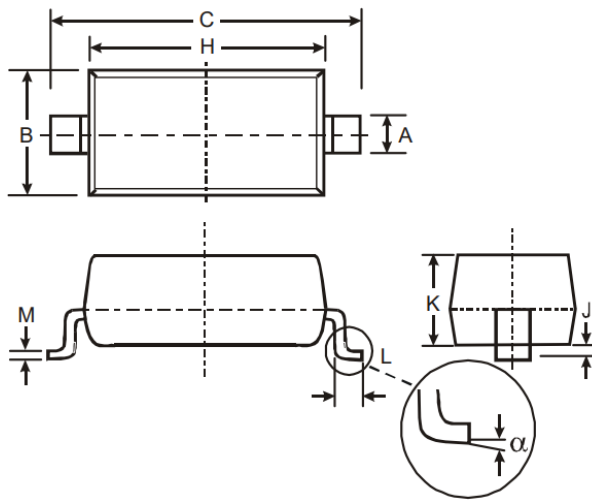
Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZ5V1HD1	SOD-123	3000	7 Inch

Mechanical Data

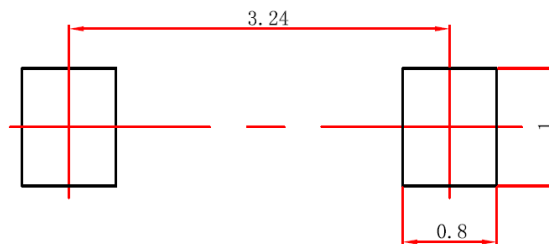
Case:SOD-123

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	0.45	0.65
B	1.50	1.70
C	3.55	3.85
H	2.6	2.8
J	0.00	0.10
K	1.05	1.15
L	0.25	0.45
M	0.08	0.15
α	0	8°

Recommended Pad outline (Unit:mm)





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