



## SSCZXXXHD2 Series

### Zener Voltage Regulator

#### ● Description

The SSCZXXXHD2 is packaged in a SOD-323 surface mount package that has a power dissipation of 350mW. 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

- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Low Zener Impedance
- ✧ Steady state power rating of 350mW
- ✧ RoHS compliant transient

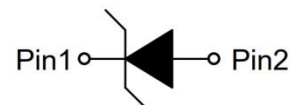
#### ● Applications

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

#### ● PIN configuration



**SOD-323**



**Circuit diagram**

#### ● Mechanical data

- ✧ Package: SOD-323
- ✧ 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>	350	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



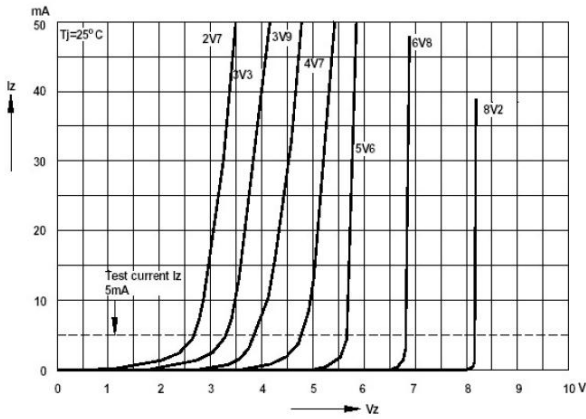
● **Electrical Characteristics @T<sub>A</sub>=25°C**

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ I <sub>ZTC</sub> =mV/°C		Test Current I <sub>ZTC</sub>
		V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	
SSCZ2V4HD2	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
SSCZ2V7HD2	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
SSCZ3V0HD2	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
SSCZ3V3HD2	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
SSCZ3V6HD2	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
SSCZ3V9HD2	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ4V3HD2	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ4V7HD2	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
SSCZ5V1HD2	5V1H	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
SSCZ5V6HD2	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
SSCZ6V2HD2	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
SSCZ6V8HD2	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
SSCZ7V5HD2	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
SSCZ8V2HD2	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
SSCZ9V1HD2	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
SSCZ10VHD2	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
SSCZ11VHD2	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
SSCZ12VHD2	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
SSCZ13VHD2	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
SSCZ15VHD2	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
SSCZ16VHD2	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
SSCZ18VHD2	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
SSCZ20VHD2	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
SSCZ22VHD2	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
SSCZ24VHD2	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
SSCZ27VHD2	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
SSCZ30VHD2	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
SSCZ33VHD2	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
SSCZ36VHD2	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
SSCZ39VHD2	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
SSCZ43VHD2	WU	43	40.0	46.0	2	150	375	0.5	0.1	32.0	10.0	12.0	5
SSCZ47VHD2	WV	47	44.0	50.0	2	170	375	0.5	0.1	35.0	10.0	12.0	5
SSCZ51VHD2	WW	51	48.0	54.0	2	180	400	0.5	0.1	38.0	10.0	12.0	5
SSCZ56VHD2	XW	56	52.0	60.0	2	200	425	0.5	0.1	39.0	10.0	12.0	5
SSCZ62VHD2	6E	62	58.0	66.0	2	215	450	0.5	0.2	47.0	10.0	12.0	5
SSCZ68VHD2	6F	68	64.0	72.0	2	240	475	0.5	0.2	52.0	10.0	12.0	5



SSCZ75VHD2	6H	75	70.0	79.0	2	255	500	0.5	0.2	57.0	10.0	12.0	5
------------	----	----	------	------	---	-----	-----	-----	-----	------	------	------	---

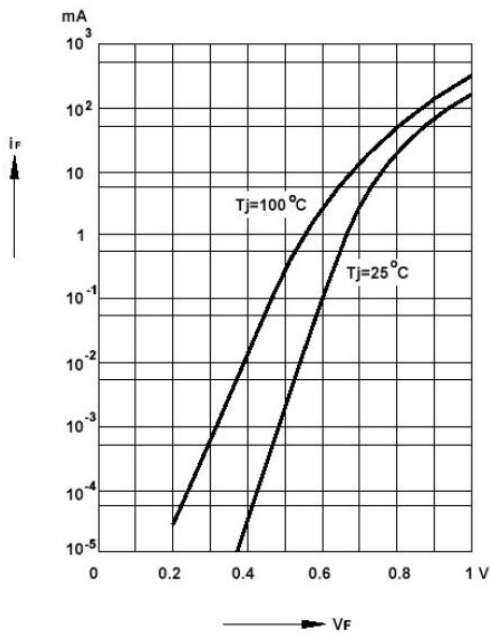
## ● Typical Performance Characteristics



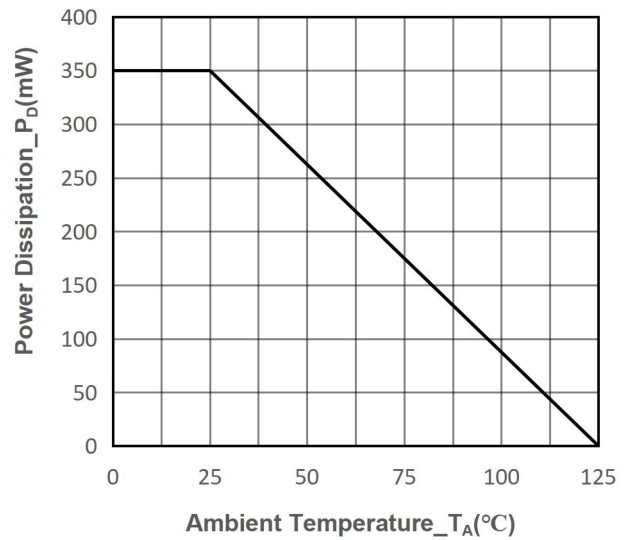
Zener Current vs. Zener Voltage



Zener Current vs. Zener Voltage



Forward Current vs. Forward Voltage



Power Derating vs. Ambient Temperature



## ● Package Information

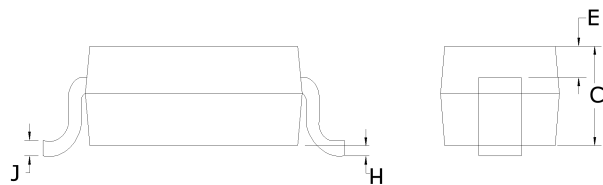
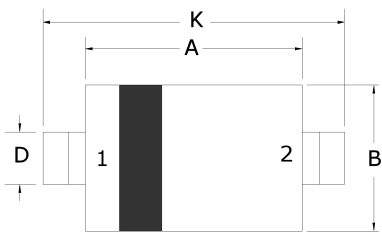
### Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZXXXHD2	SOD-323	3000	7 Inch

### Mechanical Data

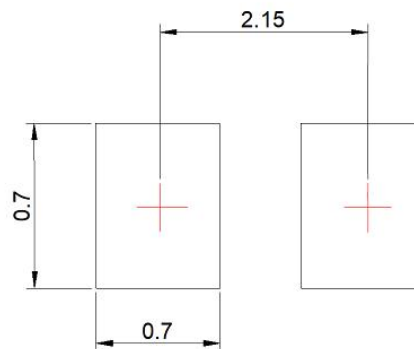
Case:SOD-323

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)





## DISCLAIMER

SSCSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. SSCSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICIENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G., OUTSIDE SPECIFIED POWER SUPPLY RANGE ) AND THEREFORE OUTSIDE THE WARRANTED RANGE.

OUR PRODUCT SPECIFICATIONS ARE ONLY VALID IF OBTAINED THROUGH THE COMPANY'S OFFICIAL WEBSITE, CRM SYSTEM, OR OUR SALES PERSONNEL CHANNELS. IF CHANGES OR SPECIAL VERSIONS ARE INVOLVED, THEY MUST BE STAMPED WITH A QUALITY SEAL AND MARKED WITH A SPECIAL VERSION NUMBER TO BE VALID.