



SSCZ52BXXXD2 Series

Zener Voltage Regulator

● Description

The SSCZ52BXXXD2 is packaged in a SOD-323 surface mount package that has a power dissipation of 200mW. 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 200mW
- ✧ RoHS compliant transient

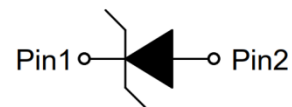
● Applications

- ✧ 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_A=25°C

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	P _D	200	mW
Forward Voltage @ I _F = 10mA	V _F	0.9	V
Storage Temperature	T _{STG}	-55/+150	°C
Operating Temperature	T _J	-55/+150	°C



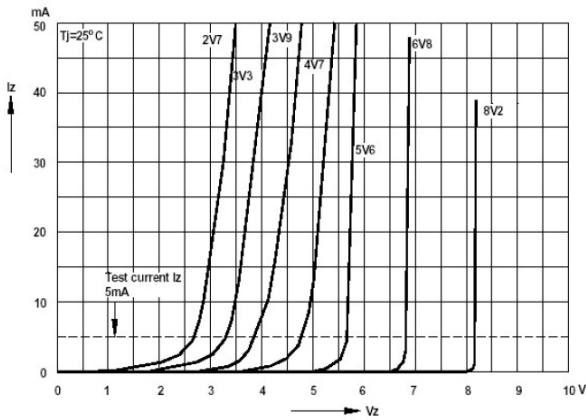
SSCZ52BXXD2

● Electrical Characteristics @T_A=25°C

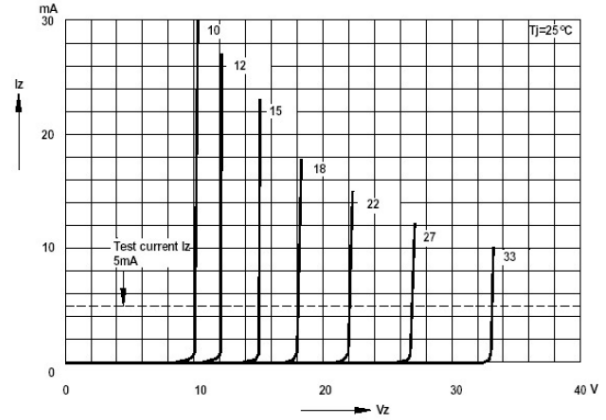
Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ I _{ZTC} =mV/°C		Test Current I _{ZTC}
		V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V			
SSCZ52B2V4D2	2WX	2.4	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0	5
SSCZ52B2V7D2	2W1	2.7	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0	5
SSCZ52B3V0D2	2W2	3.0	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0	5
SSCZ52B3V3D2	2W3	3.3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0	5
SSCZ52B3V6D2	2W4	3.6	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0	5
SSCZ52B3V9D2	2W5	3.9	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ52B4V3D2	2W6	4.3	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0	5
SSCZ52B4V7D2	2W7	4.7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2	5
SSCZ52B5V1D2	2W8	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2	5
SSCZ52B5V6D2	2W9	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5	5
SSCZ52B6V2D2	2WA	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7	5
SSCZ52B6V8D2	2WB	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5	5
SSCZ52B7V5D2	2WC	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3	5
SSCZ52B8V2D2	2WD	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2	5
SSCZ52B9V1D2	2WE	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0	5
SSCZ52B10VD2	2WF	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0	5
SSCZ52B11VD2	2WG	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0	5
SSCZ52B12VD2	2WH	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0	5
SSCZ52B13VD2	2WI	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0	5
SSCZ52B15VD2	2WJ	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0	5
SSCZ52B16VD2	2WK	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0	5
SSCZ52B18VD2	2WL	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0	5
SSCZ52B20VD2	2WM	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0	5
SSCZ52B22VD2	2WN	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0	5
SSCZ52B24VD2	2WO	24	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0	5
SSCZ52B27VD2	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2
SSCZ52B30VD2	2WQ	30	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4	2
SSCZ52B33VD2	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2
SSCZ52B36VD2	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2
SSCZ52B39VD2	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2
SSCZ52B43VD2	2WU	43	41.16	43.84	2	150	375	0.5	0.1	32.0	10.0	12.0	5
SSCZ52B47VD2	2WV	47	46.06	47.94	2	170	375	0.5	0.1	35.0	10.0	12.0	5
SSCZ52B51VD2	2WW	51	49.98	52.02	2	180	400	0.5	0.1	38.0	10.0	12.0	5



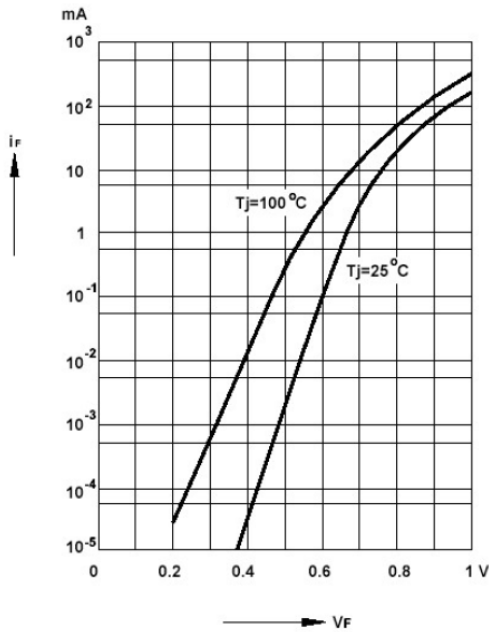
● Typical Performance Characteristics



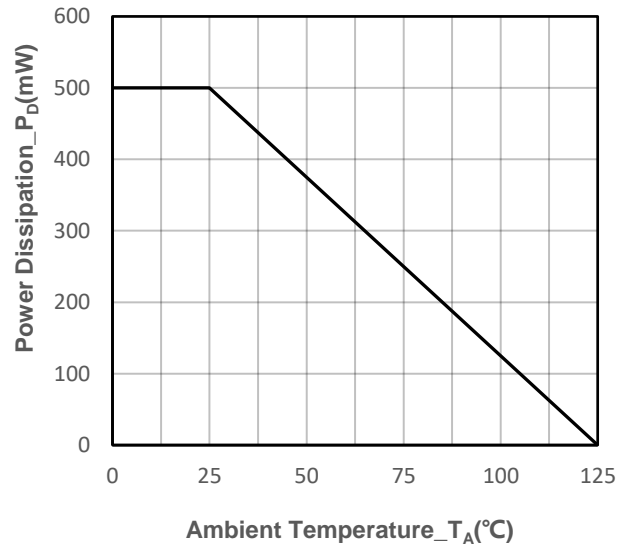
Zener Current vs. Zener Voltage



Zener Current vs. Zener Voltage



Forward Current vs. Forward Voltage



Power Derating vs. Ambient Temperature



● Package Information

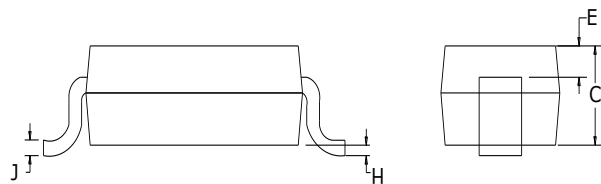
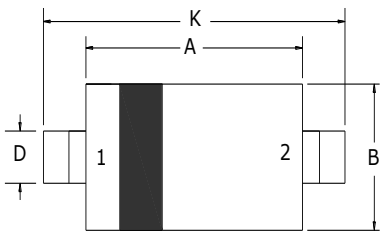
Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZ52BXXD2	SOD-323	3000	7 Inch

Mechanical Data

Case:SOD-323

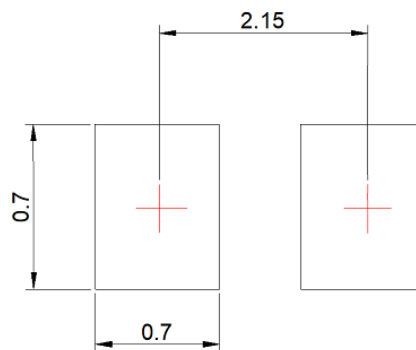
Case Material: Molded Plastic. UL Flammability



SOD-123

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.