



SSCZ52XXBD2 Series

Zener Voltage Regulator

● Description

The SSCZ52XXBD2 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

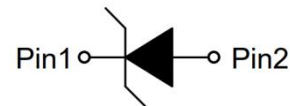
● Applications

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

● PIN configuration



SOD-323



Circuit Diagram

● Mechanical data

- ✧ Package: SOD-223
- ✧ 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 ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board	P_D	200	mW
Forward Voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Storage Temperature	T_{STG}	-55/+150	$^{\circ}\text{C}$
Operating Temperature	T_J	-55/+150	$^{\circ}\text{C}$



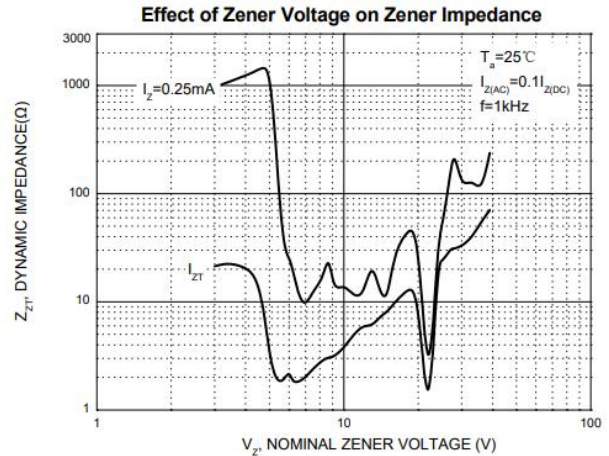
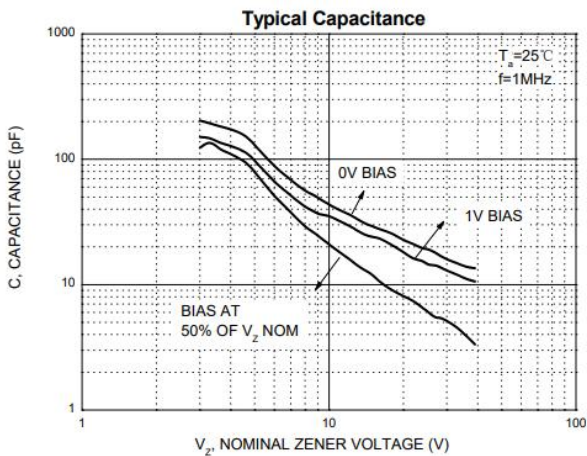
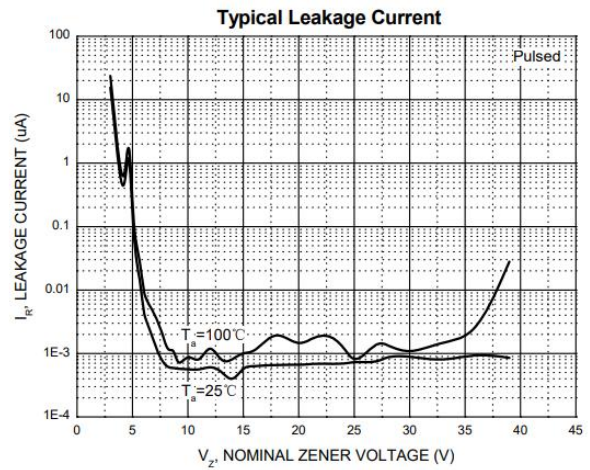
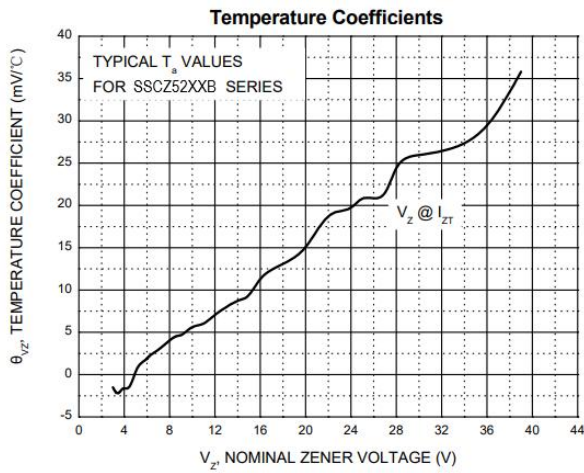
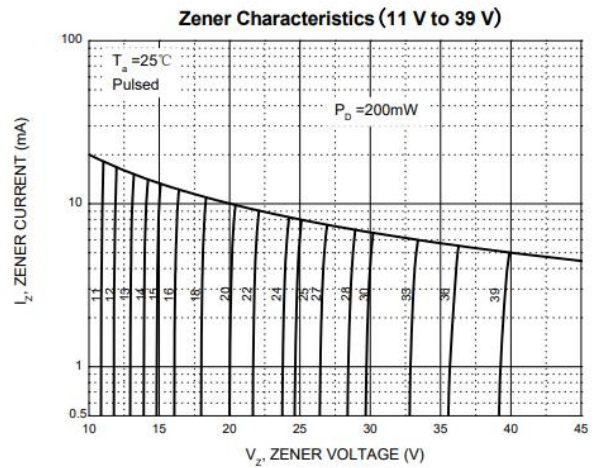
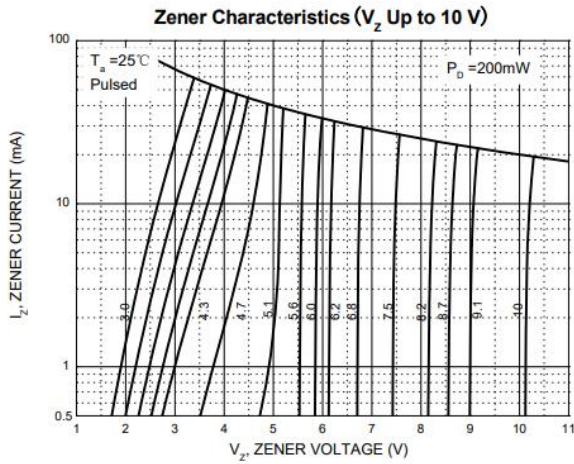
SSCZ52XXBD2

● Electrical Characteristics (T_A=25°C unless otherwise noted)

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V
SSCZ5221BD2	C1	2.4	2.28	2.52	20	30	1200	0.25	100	1.0
SSCZ5223BD2	C3	2.7	2.57	2.84	20	30	1300	0.25	75	1.0
SSCZ5225BD2	C5	3.0	2.85	3.15	20	30	1600	0.25	50	1.0
SSCZ5226BD2	G1	3.3	3.14	3.47	20	28	1600	0.25	25	1.0
SSCZ5227BD2	G2	3.6	3.42	3.78	20	24	1700	0.25	15	1.0
SSCZ5228BD2	G3	3.9	3.71	4.10	20	23	1900	0.25	10	1.0
SSCZ5229BD2	G4	4.3	4.09	4.52	20	22	2000	0.25	5.0	1.0
SSCZ5230BD2	G5	4.7	4.47	4.94	20	19	1900	0.25	5.0	2.0
SSCZ5231BD2	E1	5.1	4.85	5.36	20	17	1600	0.25	5.0	2.0
SSCZ5232BD2	E2	5.6	5.32	5.88	20	11	1600	0.25	5.0	3.0
SSCZ5233BD2	E3	6.0	5.70	6.30	20	7	1600	0.25	5.0	3.5
SSCZ5234BD2	E4	6.2	5.89	6.51	20	7	1000	0.25	5.0	4.0
SSCZ5235BD2	E5	6.8	6.46	7.14	20	5	750	0.25	3	5.0
SSCZ5236BD2	F1	7.5	7.13	7.88	20	6	500	0.25	3	6.0
SSCZ5237BD2	F2	8.2	7.79	8.61	20	8	500	0.25	3	6.5
SSCZ5238BD2	F3	8.7	8.27	9.14	20	8	600	0.25	3	6.5
SSCZ5239BD2	F4	9.1	8.65	9.56	20	10	600	0.25	3	7.0
SSCZ5240BD2	F5	10	9.50	10.50	20	17	600	0.25	3	8.0
SSCZ5241BD2	H1	11	10.45	11.55	20	22	600	0.25	2.0	8.4
SSCZ5242BD2	H2	12	11.40	12.60	20	30	600	0.25	1.0	9.1
SSCZ5243BD2	H3	13	12.35	13.65	9.5	13	600	0.25	0.5	9.9
SSCZ5244BD2	H4	14	13.30	14.70	9.0	15	600	0.25	0.1	10
SSCZ5245BD2	H5	15	14.25	15.75	8.5	16	600	0.25	0.1	11
SSCZ5246BD2	J1	16	15.20	16.80	7.8	17	600	0.25	0.1	12
SSCZ5248BD2	J3	18	17.10	18.90	7.0	21	600	0.25	0.1	14
SSCZ5250BD2	J5	20	19.00	21.00	6.2	25	600	0.25	0.1	15
SSCZ5251BD2	K1	22	20.90	23.10	5.6	29	600	0.25	0.1	17
SSCZ5252BD2	K2	24	22.80	25.20	5.2	33	600	0.25	0.1	18
SSCZ5253BD2	K3	25	23.75	26.25	5.0	35	600	0.25	0.1	19
SSCZ5254BD2	K4	27	25.65	28.35	5.0	41	600	0.25	0.1	21
SSCZ5255BD2	K5	28	26.60	29.40	4.5	44	600	0.25	0.1	21
SSCZ5256BD2	M1	30	28.50	31.50	4.2	49	600	0.25	0.1	23
SSCZ5257BD2	M2	33	31.35	34.65	3.8	58	700	0.25	0.1	25
SSCZ5258BD2	M3	36	34.20	37.80	3.4	70	700	0.25	0.1	27
SSCZ5259BD2	M4	39	37.05	40.95	3.2	80	800	0.25	0.1	30



● Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)





● Package Information

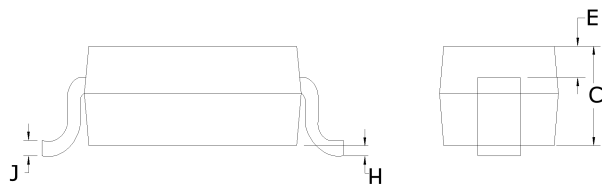
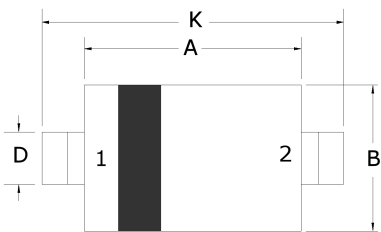
Ordering Information

Device	Package	Qty per Reel	Reel Size
SSCZ52XXBD2	SOD-323	3000	7 Inch

Mechanical Data

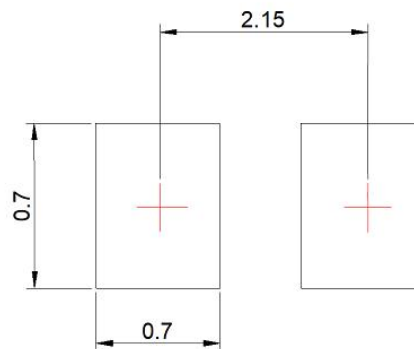
Case: SOD-323

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.