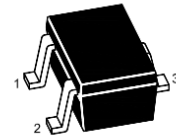
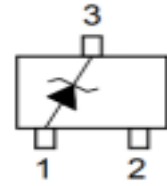




BZX 84Cxx Silicon Planar Zener Diodes

This series of Zener diodes is offered in the convenient, surface mount plastic SOT-323 package. These devices are designed to provide voltage regulation with minimum space requirement. They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.



SOT-323 Plastic Package

1. Anode 3. Cathode

Features

- Zener breakdown voltage range - 2.4 V to 75 V
- Package designed for optimal automated board assembly
- Small package size for high density applications

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

¹⁾ Alumina = 0.4 X 0.3 X 0.024 in, 99.5% alumina



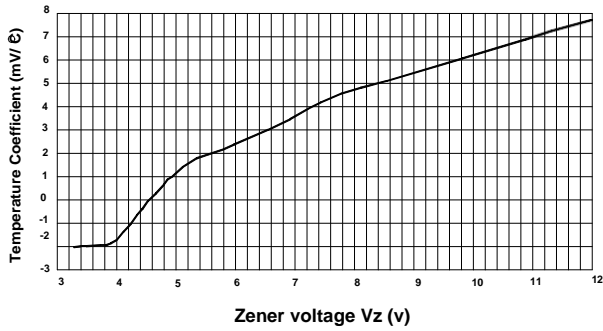
Electrical Characteristics ($T_a = 25\text{ }^\circ\text{C}$ unless otherwise noted, $V_F < 0.9\text{ V}$ at $I_F = 10\text{ mA}$)

Type	Marking Code	Zener Voltage Range ¹⁾				Dynamic Impedance		Reverse Current	
		V_{ZT}			at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
		Nom. (V)	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
BZX84C2V4W	EA	2.4	2.2	2.6	5	100	5	50	1
BZX84C2V7W	EB	2.7	2.5	2.9	5	100	5	20	1
BZX84C3V0W	EC	3	2.8	3.2	5	95	5	10	1
BZX84C3V3W	ED	3.3	3.1	3.5	5	95	5	5	1
BZX84C3V6W	EE	3.6	3.4	3.8	5	90	5	5	1
BZX84C3V9W	EF	3.9	3.7	4.1	5	90	5	3	1
BZX84C4V3W	EH	4.3	4	4.6	5	90	5	3	1
BZX84C4V7W	EJ	4.7	4.4	5	5	80	5	3	2
BZX84C5V1W	EK	5.1	4.8	5.4	5	60	5	2	2
BZX84C5V6W	EM	5.6	5.2	6	5	40	5	1	2
BZX84C6V2W	EN	6.2	5.8	6.6	5	10	5	3	4
BZX84C6V8W	EP	6.8	6.4	7.2	5	15	5	2	4
BZX84C7V5W	ER	7.5	7	7.9	5	15	5	1	5
BZX84C8V2W	EX	8.2	7.7	8.7	5	15	5	0.7	5
BZX84C9V1W	EY	9.1	8.5	9.6	5	15	5	0.5	6
BZX84C10W	EZ	10	9.4	10.6	5	20	5	0.2	7
BZX84C11W	FA	11	10.4	11.6	5	20	5	0.1	8
BZX84C12W	FB	12	11.4	12.7	5	25	5	0.1	8
BZX84C13W	FC	13	12.4	14.1	5	30	5	0.1	8
BZX84C15W	FD	15	13.8	15.6	5	30	5	0.05	10.5
BZX84C16W	FE	16	15.3	17.1	5	40	5	0.05	11.2
BZX84C18W	FF	18	16.8	19.1	5	45	5	0.05	12.6
BZX84C20W	FH	20	18.8	21.2	5	55	5	0.05	14
BZX84C22W	FJ	22	20.8	23.3	5	55	5	0.05	15.4
BZX84C24W	FK	24	22.8	25.6	5	70	5	0.05	16.8
BZX84C27W	FM	27	25.1	28.9	2	80	2	0.05	18.9
BZX84C30W	FN	30	28	32	2	80	2	0.05	21
BZX84C33W	FP	33	31	35	2	80	2	0.05	23.1
BZX84C36W	FR	36	34	38	2	90	2	0.05	25.2
BZX84C39W	FX	39	37	41	2	130	2	0.05	27.3
BZX84C43W	FY	43	40	46	2	150	2	0.05	30.1
BZX84C47W	FZ	47	44	50	2	170	2	0.05	32.9
BZX84C51W	KA	51	48	54	2	180	2	0.05	35.7
BZX84C56W	KB	56	52	60	2	200	2	0.05	39.2
BZX84C62W	KC	62	58	66	2	215	2	0.05	43.4
BZX84C68W	KD	68	64	72	2	240	2	0.05	47.6
BZX84C75W	KE	75	70	79	2	255	2	0.05	52.5

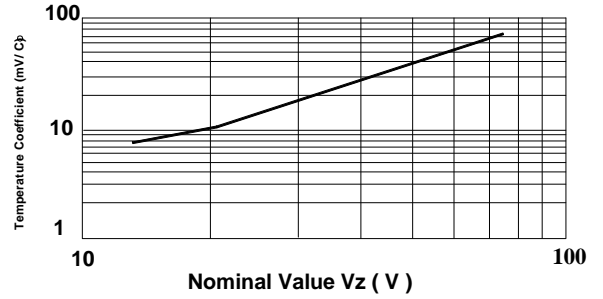
¹⁾ Tested with pulses $t_p = 20\text{ ms}$.



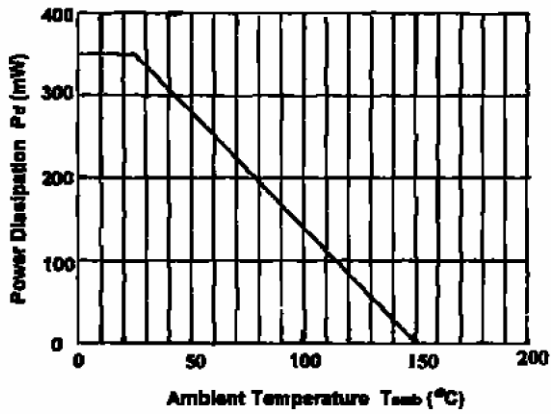
Temperature Coefficient



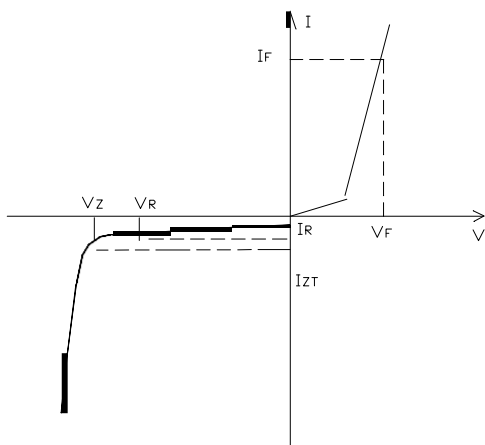
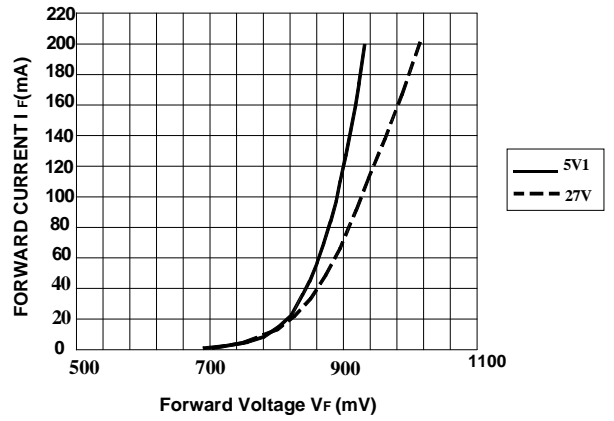
Temperature Coefficient



Power Derating Curve



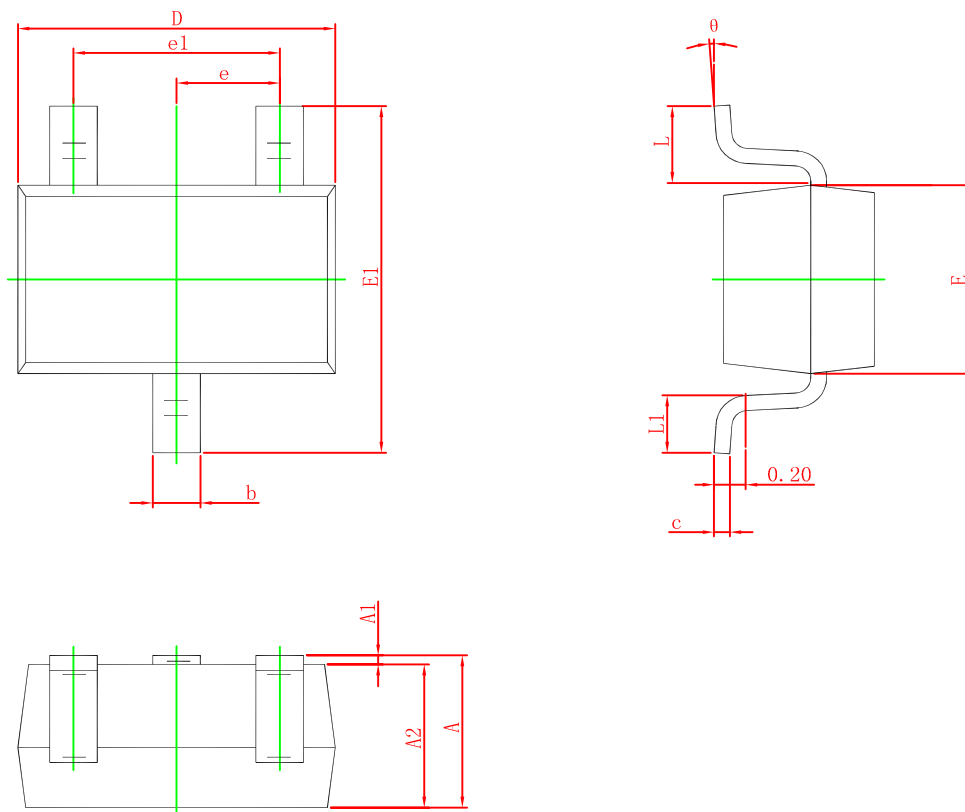
Typical Forward Voltage



Zener Voltage Regulator



SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°