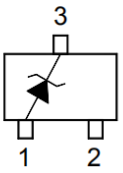
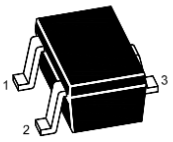
Silicon Planar Zener Diodes

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 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Thermal Resistance, Junction to Ambient [1)]	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

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

Electrical Characteristics (T_a = 25 °C unless otherwise noted, V_F < 0.9 V at I_F = 10 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)
BZX84B2V4W	CR	2.4	2.35	2.45	5	100	5	50	1
BZX84B2V7W	CX	2.7	2.65	2.75	5	100	5	20	1
BZX84B3V0W	CY	3	2.94	3.06	5	95	5	10	1
BZX84B3V3W	CZ	3.3	3.23	3.37	5	95	5	5	1
BZX84B3V6W	DA	3.6	3.53	3.67	5	90	5	5	1
BZX84B3V9W	DB	3.9	3.82	3.98	5	90	5	3	1
BZX84B4V3W	DC	4.3	4.21	4.39	5	90	5	3	1
BZX84B4V7W	DD	4.7	4.61	4.79	5	80	5	3	2
BZX84B5V1W	DE	5.1	5	5.2	5	60	5	2	2
BZX84B5V6W	DF	5.6	5.49	5.71	5	40	5	1	2
BZX84B6V2W	DH	6.2	6.08	6.32	5	10	5	3	4
BZX84B6V8W	DJ	6.8	6.66	6.94	5	15	5	2	4
BZX84B7V5W	DK	7.5	7.35	7.65	5	15	5	1	5
BZX84B8V2W	DM	8.2	8.04	8.36	5	15	5	0.7	5
BZX84B9V1W	DN	9.1	8.92	9.28	5	15	5	0.5	6
BZX84B10W	DP	10	9.8	10.2	5	20	5	0.2	7
BZX84B11W	DR	11	10.78	11.22	5	20	5	0.1	8
BZX84B12W	DX	12	11.76	12.24	5	25	5	0.1	8
BZX84B13W	DY	13	12.74	13.26	5	30	5	0.1	8
BZX84B15W	DZ	15	14.7	15.3	5	30	5	0.05	10.5
BZX84B16W	EA	16	15.68	16.32	5	40	5	0.05	11.2
BZX84B18W	EB	18	17.64	18.36	5	45	5	0.05	12.6
BZX84B20W	EC	20	19.6	20.4	5	55	5	0.05	14
BZX84B22W	ED	22	21.56	22.44	5	55	5	0.05	15.4
BZX84B24W	EE	24	23.52	24.48	5	70	5	0.05	16.8
BZX84B27W	EF	27	26.46	27.54	2	80	2	0.05	18.9
BZX84B30W	EH	30	29.4	30.6	2	80	2	0.05	21
BZX84B33W	EJ	33	32.34	33.66	2	80	2	0.05	23.1
BZX84B36W	EK	36	35.28	36.72	2	90	2	0.05	25.2
BZX84B39W	EM	39	38.22	39.78	2	130	2	0.05	27.3
BZX84B43W	EN	43	42.14	43.86	2	150	2	0.05	30.1
BZX84B47W	EP	47	46.06	47.94	2	170	2	0.05	32.9
BZX84B51W	ER	51	49.98	52.02	2	180	2	0.05	35.7
BZX84B56W	EX	56	54.88	57.12	2	200	2	0.05	39.2
BZX84B62W	EY	62	60.76	63.24	2	215	2	0.05	43.4
BZX84B68W	EZ	68	66.64	69.36	2	240	2	0.05	47.6
BZX84B75W	FA	75	73.5	76.5	2	255	2	0.05	52.5

[1] Tested with pulses tp = 20 ms.

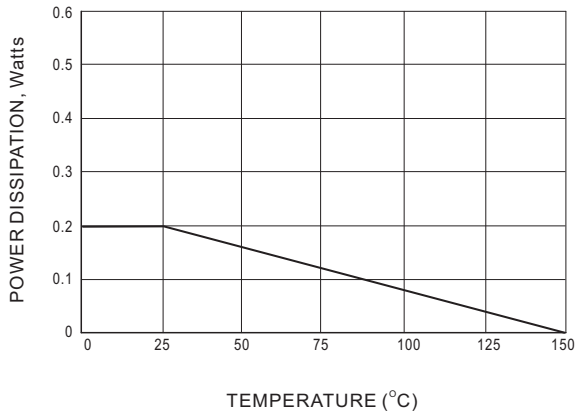


Fig.1 STEADY STATE POWER DERATING

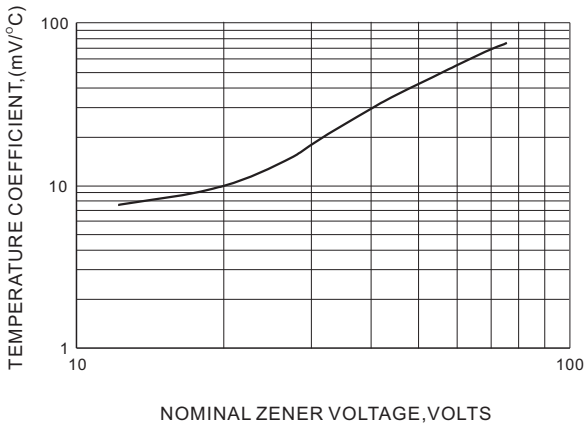


Fig.2 TEMPERATURE COEFFICENTS

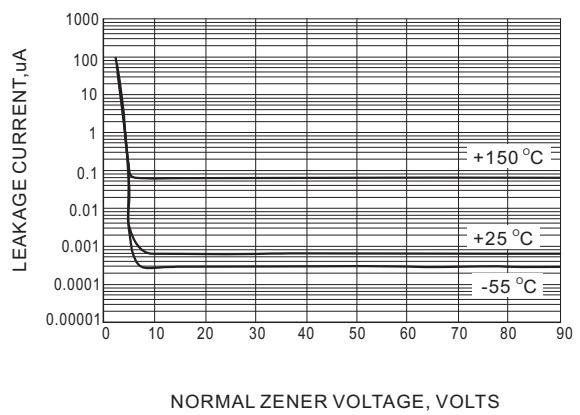


Fig.3 TYPICAL LEAKAGE CURRENT

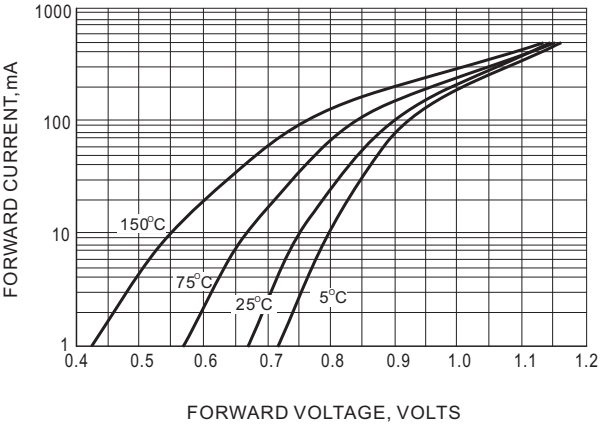


Fig.4 TYPICAL FORWARD VOLTAGE