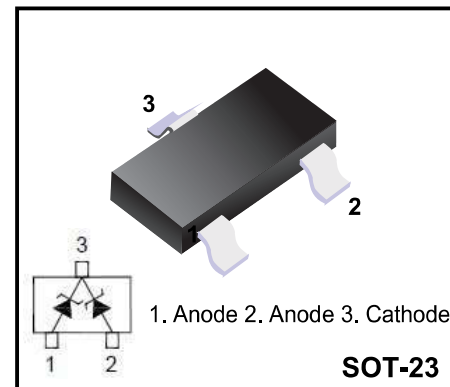


SILICON PLANAR ZENER DIODES

This series of Zener diodes is offered in the convenient, surface mount plastic SOT-23 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.



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 (Ta = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature Range	T_j, T_s	- 65 to + 150	°C

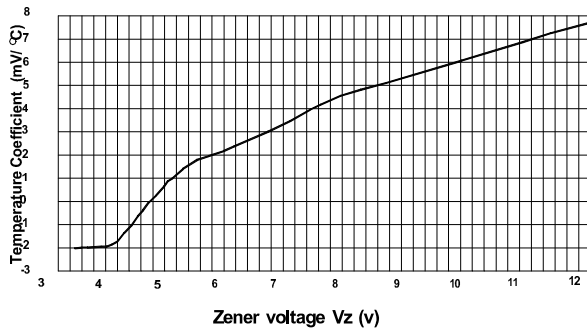
¹⁾ Alumina = 0.4 X 0.3 X 0.024 in, 99.5% alumina

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

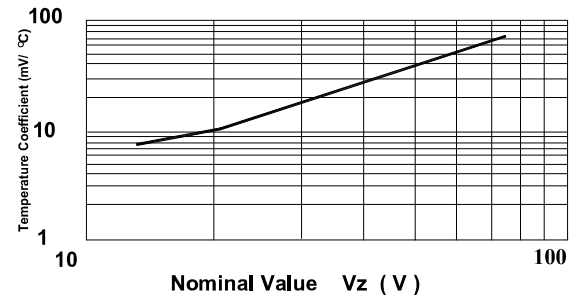
Type	Marking Code	Zener Voltage Range ¹⁾				Dynamic Resistance	Reverse Leakage Current	
		Min.	Nom.	Max.	I_{ZT} (mA)	Z_{ZT} Max. (Ω)	I_R Max. (μA)	at V_R (V)
BZX84C2V4CC	JH	2.2	2.4	2.6	5	100	50	1
BZX84C2V7CC	JJ	2.5	2.7	2.9	5	100	20	1
BZX84C3V0CC	JK	2.8	3	3.2	5	95	10	1
BZX84C3V3CC	JM	3.1	3.3	3.5	5	95	5	1
BZX84C3V6CC	JN	3.4	3.6	3.8	5	90	5	1
BZX84C3V9CC	JP	3.7	3.9	4.1	5	90	3	1
BZX84C4V3CC	JR	4	4.3	4.6	5	90	3	1
BZX84C4V7CC	JX	4.4	4.7	5	5	80	3	2
BZX84C5V1CC	JY	4.8	5.1	5.4	5	60	2	2
BZX84C5V6CC	JZ	5.2	5.6	6	5	40	1	2
BZX84C6V2CC	KA	5.8	6.2	6.6	5	10	3	4
BZX84C6V8CC	KB	6.4	6.8	7.2	5	15	2	4
BZX84C7V5CC	KC	7	7.5	7.9	5	15	1	5
BZX84C8V2CC	KD	7.7	8.2	8.7	5	15	0.7	5
BZX84C9V1CC	KE	8.5	9.1	9.6	5	15	0.5	6
BZX84C10CC	KF	9.4	10	10.6	5	20	0.2	7
BZX84C11CC	KH	10.4	11	11.6	5	20	0.1	8
BZX84C12CC	KJ	11.4	12	12.7	5	25	0.1	8
BZX84C13CC	KK	12.4	13	14.1	5	30	0.1	8
BZX84C15CC	KM	14.3	15	15.8	5	30	0.05	10.5
BZX84C16CC	KN	15.3	16	17.1	5	40	0.05	11.2
BZX84C18CC	KP	16.8	18	19.1	5	45	0.05	12.6
BZX84C20CC	KR	18.8	20	21.2	5	55	0.05	14
BZX84C22CC	KX	20.8	22	23.3	5	55	0.05	15.4
BZX84C24CC	KY	22.8	24	25.6	5	70	0.05	16.8
BZX84C27CC	KZ	25.1	27	28.9	2	80	0.05	18.9
BZX84C30CC	MA	28	30	32	2	80	0.05	21
BZX84C33CC	MB	31	33	35	2	80	0.05	23.1
BZX84C36CC	MC	34	36	38	2	90	0.05	25.2
BZX84C39CC	MD	37	39	41	2	130	0.05	27.3
BZX84C43CC	ME	40	43	46	2	150	0.05	30.1
BZX84C47CC	MF	44	47	50	2	170	0.05	32.9
BZX84C51CC	MH	48	51	54	2	180	0.05	35.7
BZX84C56CC	MJ	52	56	60	2	200	0.05	39.2
BZX84C62CC	MK	58	62	66	2	215	0.05	43.4
BZX84C68CC	MM	64	68	72	2	240	0.05	47.6
BZX84C75CC	MN	70	75	79	2	255	0.05	52.5

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

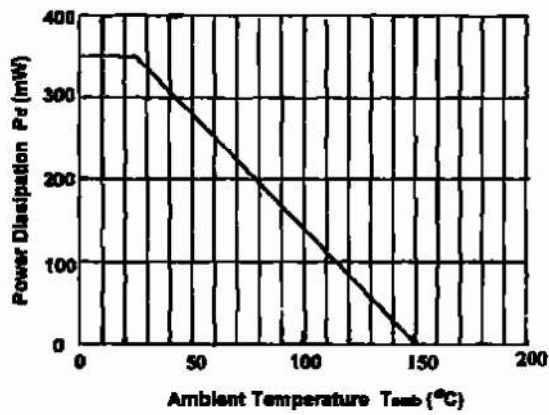
Temperature Coefficient



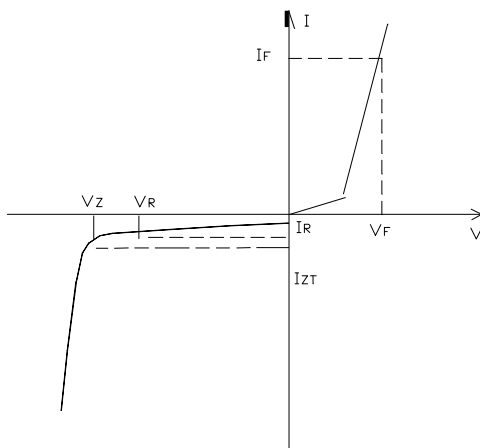
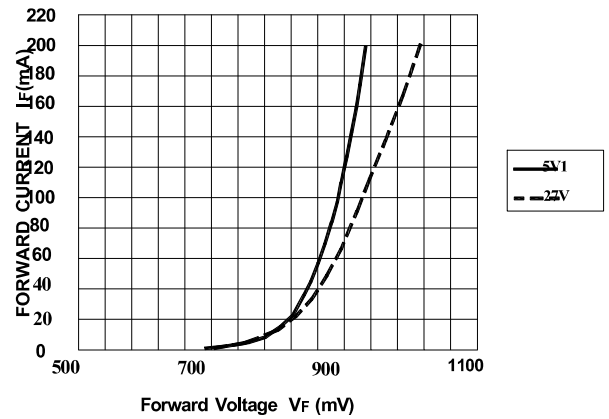
Temperature Coefficient



Power Derating Curve



Typical Forward Voltage



Zener Voltage Regulator

Ordering information

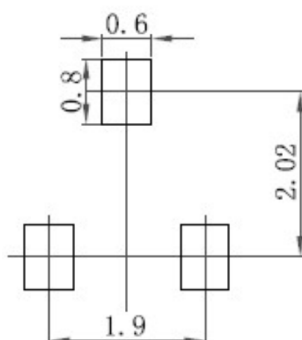
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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