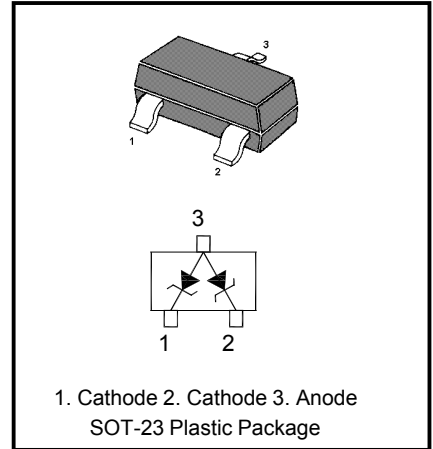


SILICON PLANAR ZENER DIODES

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

Characteristics at Ta = 25 °C

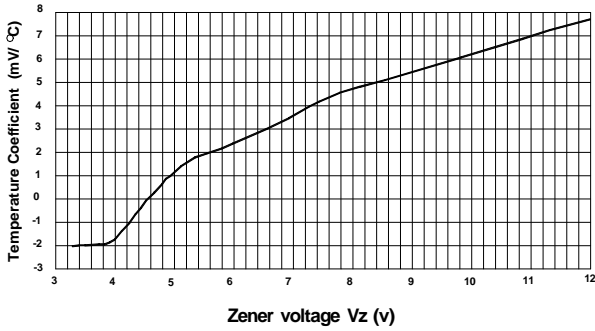
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10 \text{ mA}$	V_F	0.9	V

Electrical Characteristics (Ta = 25°C unless otherwise noted)

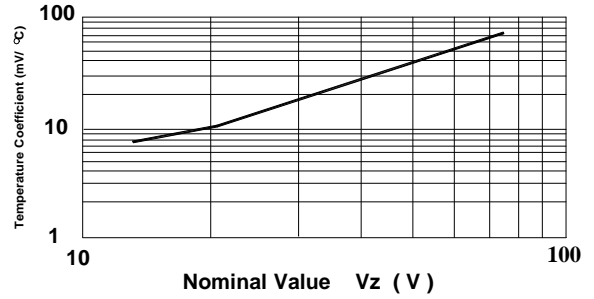
Type	Marking Code	Zener Voltage Range ¹⁾				Dynamic Resistance		Reverse Leakage Current	
		V _Z			at I _{ZT}	Z _{ZT}	at I _{ZT}	I _R	at V _R
		Nom. (V)	Min. (V)	Max. (V)	mA	Max. (Ω)	mA	Max. (μA)	V
BZX84C2V4CA	7H	2.4	2.2	2.6	5	100	5	50	1
BZX84C2V7CA	7J	2.7	2.5	2.9	5	100	5	20	1
BZX84C3V0CA	MR	3.0	2.8	3.2	5	95	5	10	1
BZX84C3V3CA	MX	3.3	3.1	3.5	5	95	5	5	1
BZX84C3V6CA	MY	3.6	3.4	3.8	5	90	5	5	1
BZX84C3V9CA	MZ	3.9	3.7	4.1	5	90	5	3	1
BZX84C4V3CA	NA	4.3	4	4.6	5	90	5	3	1
BZX84C4V7CA	NB	4.7	4.4	5	5	80	5	3	2
BZX84C5V1CA	NC	5.1	4.8	5.4	5	60	5	2	2
BZX84C5V6CA	ND	5.6	5.2	6	5	40	5	1	2
BZX84C6V2CA	NE	6.2	5.8	6.6	5	10	5	3	4
BZX84C6V8CA	NF	6.8	6.4	7.2	5	15	5	2	4
BZX84C7V5CA	NH	7.5	7	7.9	5	15	5	1	5
BZX84C8V2CA	NJ	8.2	7.7	8.7	5	15	5	0.7	5
BZX84C9V1CA	NK	9.1	8.5	9.6	5	15	5	0.5	6
BZX84C10CA	NM	10	9.4	10.6	5	20	5	0.2	7
BZX84C11CA	NN	11	10.4	11.6	5	20	5	0.1	8
BZX84C12CA	NP	12	11.4	12.7	5	25	5	0.1	8
BZX84C13CA	NX	13	12.4	14.1	5	30	5	0.1	8
BZX84C15CA	NY	15	14.3	15.8	5	30	5	0.05	10.5
BZX84C16CA	NZ	16	15.3	17.1	5	40	5	0.05	11.2
BZX84C18CA	PA	18	16.8	19.1	5	45	5	0.05	12.6
BZX84C20CA	PB	20	18.8	21.2	5	55	5	0.05	14
BZX84C22CA	PC	22	20.8	23.3	5	55	5	0.05	15.4
BZX84C24CA	PD	24	22.8	25.6	5	70	5	0.05	16.8
BZX84C27CA	PE	27	25.1	28.9	2	80	2	0.05	18.9
BZX84C30CA	PF	30	28	32	2	80	2	0.05	21
BZX84C33CA	PH	33	31	35	2	80	2	0.05	23.1
BZX84C36CA	PJ	36	34	38	2	90	2	0.05	25.2
BZX84C39CA	PM	39	37	41	2	130	2	0.05	27.3
BZX84C43CA	PN	43	40	46	2	150	2	0.05	30.1
BZX84C47CA	PP	47	44	50	2	170	2	0.05	32.9
BZX84C51CA	7K	51	48	54	2	180	2	0.05	35.7
BZX84C56CA	7M	56	52	60	2	200	2	0.05	39.2
BZX84C62CA	7N	62	58	66	2	215	2	0.05	43.4
BZX84C68CA	7P	68	64	72	2	240	2	0.05	47.6
BZX84C75CA	7R	75	70	79	2	255	2	0.05	52.5

¹⁾ Tested with pulses tp = 20 ms.

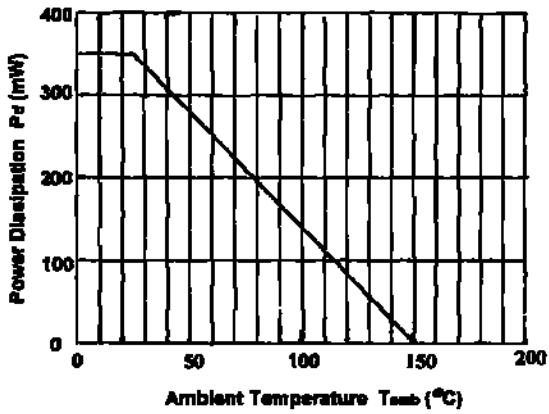
Temperature Coefficient



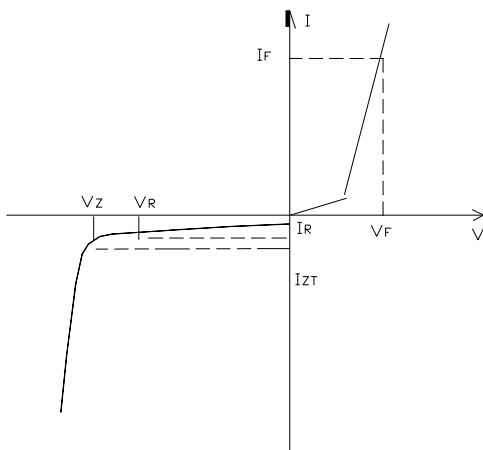
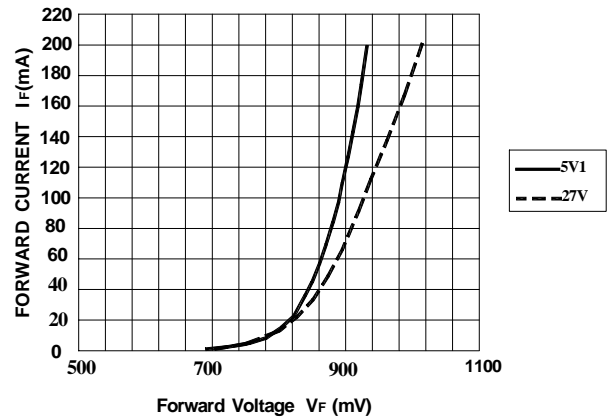
Temperature Coefficient



Power Derating Curve



Typical Forward Voltage

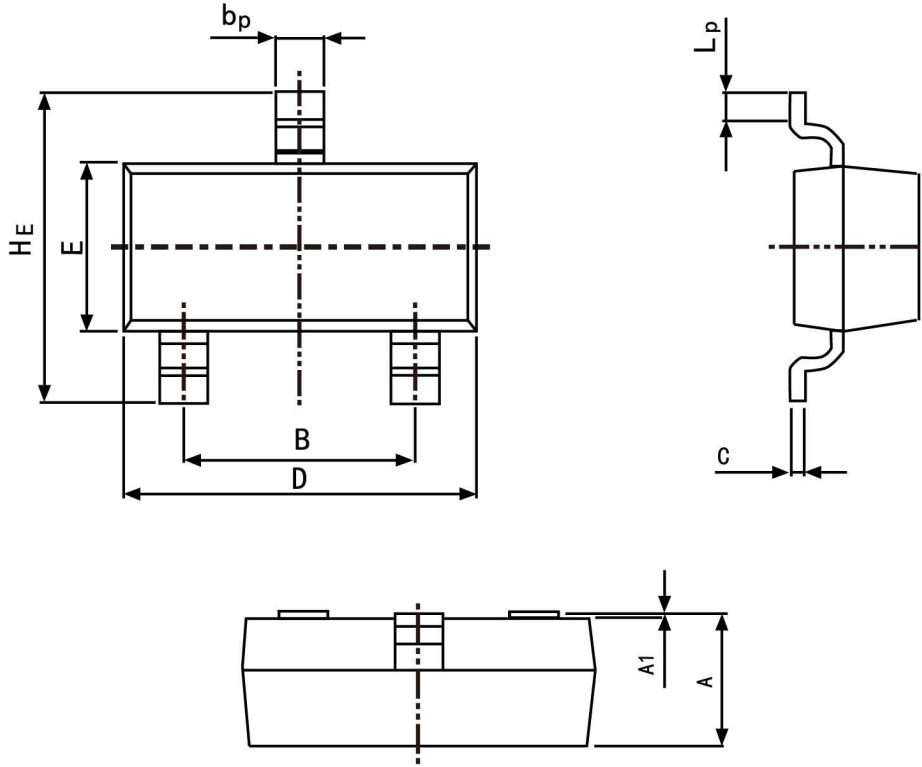


Zener Voltage Regulator

Package Outline

SOT-23

Plastic surface mounted package; 3 leads



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
bp	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
Lp	0.20	0.50

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel,7"reel	3000	EIA-481-1