

BZX84C Series

SILICON PLANAR ZENER DIODES

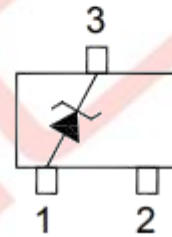
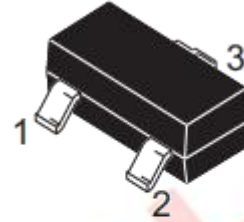
Power Dissipation: 350mW

Zener Voltage: 2.0V to 75V

Features

- ◆ Zener breakdown voltage range:2.0V to 75V
- ◆ Package designed for optimal automated board assembly
- ◆ Small package size for high density applications

SOT-23



Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Max	Unit
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient ¹	$R_{\theta JA}$	357	°C/W
Junction Temperature	T_J	150	mW
Storage Temperature Range	T_{stg}	-65 to +150	°C

1. Alumina=0.4*0.3*0.024 in, 99.5% alumina

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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{ V Max.}$ @ $I_F = 10\text{ mA}$ for all types)

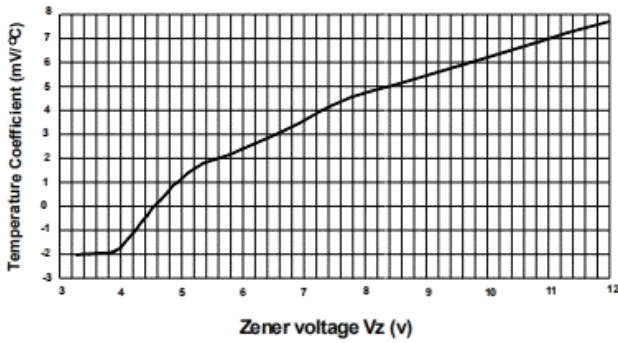
Type	Marking	Zener Voltage Range ¹				Dynamic Impedance		Reverse Current	
		V_{ZT} (Volts)			I_{ZT} (mA)	Z_{ZT} Max.(Ω)	at I_{ZT} (mA)	I_R Max.(μA)	at V_R (V)
		Min	Nom	Max					
BZX84C2V0	A8	1.8	2	2.15	5	100	5	120	0.5
BZX84C2V2	B8	2.08	2.2	2.33	5	100	5	120	0.7
BZX84C2V4	C8	2.2	2.4	2.6	5	100	5	5	1
BZX84C2V7	D8	2.5	2.7	2.9	5	100	5	20	1
BZX84C3V0	E8	2.8	3	3.2	5	95	5	10	1
BZX84C3V3	F8	3.1	3.3	3.5	5	95	5	5	1
BZX84C3V6	H8	3.4	3.6	3.8	5	90	5	5	1
BZX84C3V9	J8	3.7	3.9	4.1	5	90	5	3	1
BZX84C4V3	K8	4	4.3	4.6	5	90	5	3	1
BZX84C4V7	M8	4.4	4.7	5	5	80	5	3	2
BZX84C5V1	N8	4.8	5.1	5.4	5	60	5	2	2
BZX84C5V6	P8	5.2	5.6	6	5	40	5	1	2
BZX84C6V2	R8	5.8	6.2	6.6	5	10	5	3	4
BZX84C6V8	X8	6.4	6.8	7.2	5	15	5	2	4
BZX84C7V5	Y8	7	7.5	7.9	5	15	5	1	5
BZX84C8V2	Z8	7.7	8.2	8.7	5	15	5	0.7	5
BZX84C9V1	A9	8.5	9.1	9.6	5	15	5	0.5	6
BZX84C10	B9	9.4	10	10.6	5	20	5	0.2	7
BZX84C11	C9	10.4	11	11.6	5	20	5	0.1	8
BZX84C12	D9	11.4	12	12.7	5	25	5	0.1	8
BZX84C13	E9	12.4	13	14.1	5	30	5	0.1	8
BZX84C15	F9	13.8	15	15.6	5	30	5	0.05	10.5
BZX84C16	H9	15.3	16	17.1	5	40	5	0.05	11.2
BZX84C18	J9	16.8	18	19.1	5	45	5	0.05	12.6
BZX84C20	K9	18.8	20	21.2	5	55	5	0.05	14
BZX84C22	M9	20.8	22	23.3	5	55	5	0.05	15.4
BZX84C24	N9	22.8	24	25.6	5	70	5	0.05	16.8
BZX84C27	P9	25.1	27	28.9	2	80	2	0.05	18.9
BZX84C30	R9	28	30	32	2	80	2	0.05	21
BZX84C33	X9	31	33	35	2	80	2	0.05	23.1
BZX84C36	Y9	34	36	38	2	90	2	0.05	25.2
BZX84C39	Z9	37	39	41	2	130	2	0.05	27.3
BZX84C43	A0	40	43	46	2	150	2	0.05	30.1
BZX84C47	B0	44	47	50	2	170	2	0.05	32.9
BZX84C51	C0	48	51	54	2	180	2	0.05	35.7
BZX84C56	D0	52	56	60	2	200	2	0.05	39.2
BZX84C62	E0	58	62	66	2	215	2	0.05	43.4
BZX84C68	F0	64	68	72	2	240	2	0.05	47.6
BZX84C75	H0	70	75	79	2	255	2	0.05	52.5

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

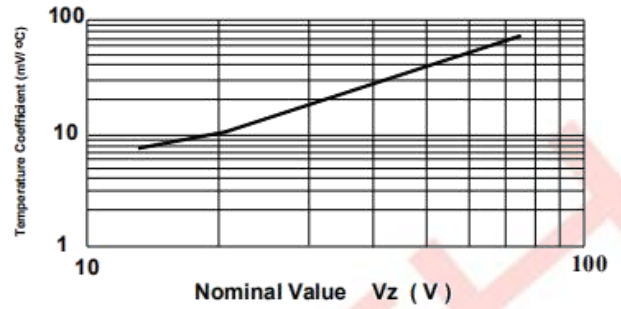
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RATINGS AND CHARACTERISTIC CURVES

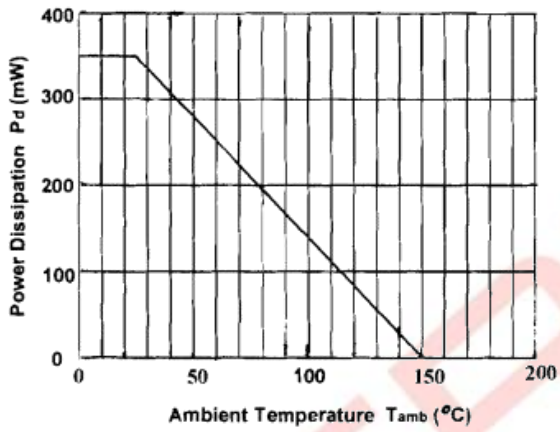
Temperature Coefficient



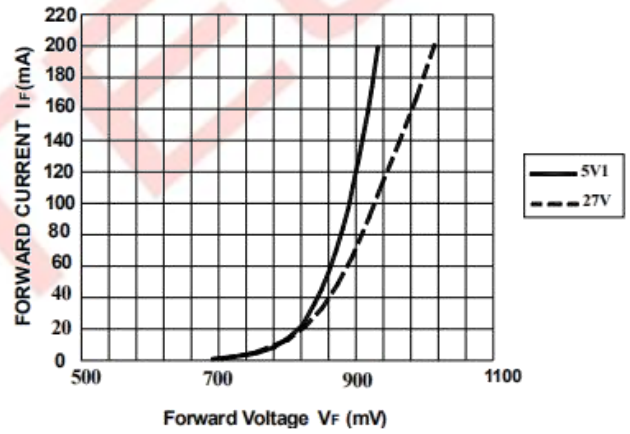
Temperature Coefficient



Power Derating Curve

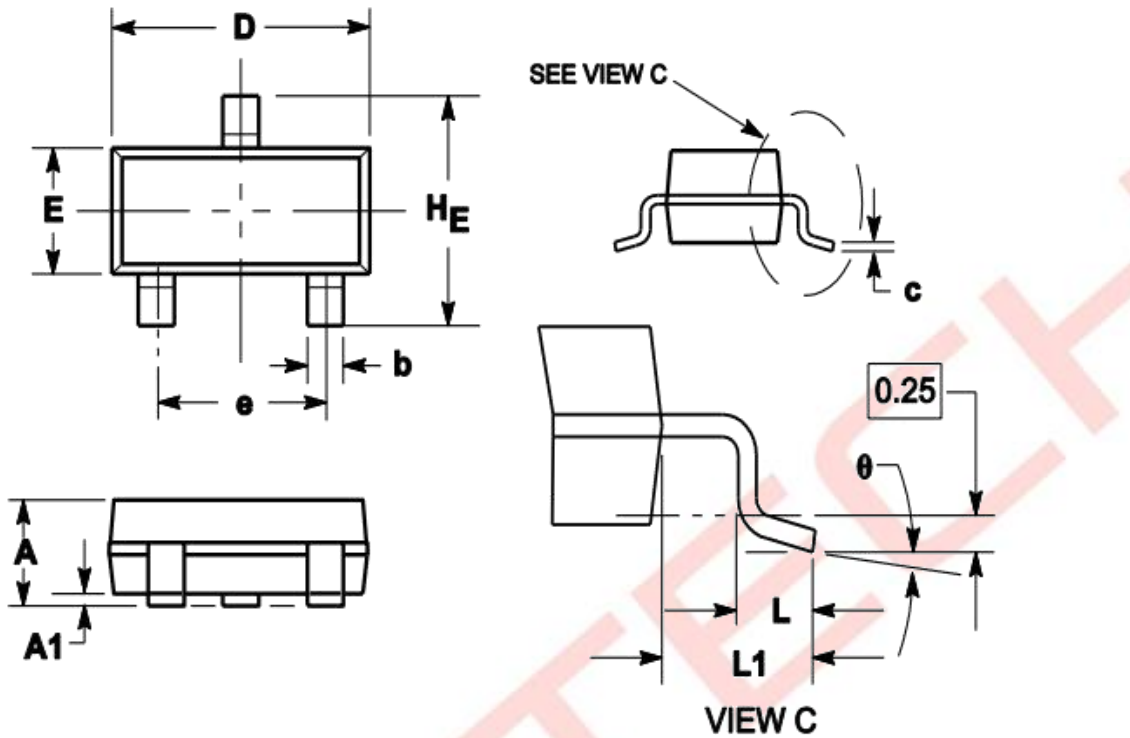


Typical Forward Voltage

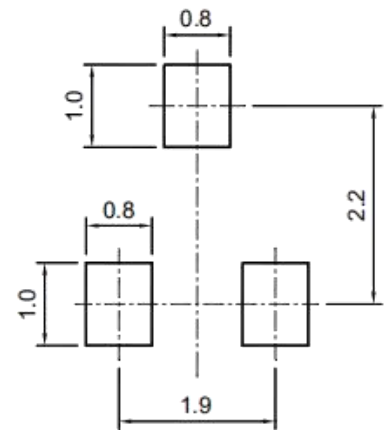


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PACKAGE OUTLINE SOT-23



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
θ	0°		8°



SOT-23

Recommended soldering pad

Ordering information

Device	Package	Shipping
BZX84C Series	SOT-23	3000/Tape&Reel(7 inches)