

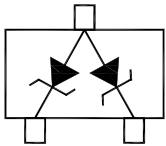
ZENER DIODE

Features

- Total power dissipation: 350mW max
- Package designed for optimal automated board assembly
- Small package size for high density applications
- Wide zener reverse voltage range:2.0V to 75V
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Exsemi technology

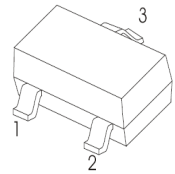
Equivalent Circuit

3.Anode1、 Anode2



1.Cathode1 2.Cathode2

SOT-23



1.Cathode1 2.Cathode2
3.Anode1、 Anode2

Absolute Maximum Ratings at $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbols	Value	Unit
Maximum Power Dissipation	P_D	350	mW
Thermal Resistance, Junction-to-Ambient ^{Note1}	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^\circ\text{C}$

Note: 1. Alumina = 0.4 X 0.3 X 0.024 in,99.5% Alumina

Electrical Characteristics at $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbols	Value	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.9	V

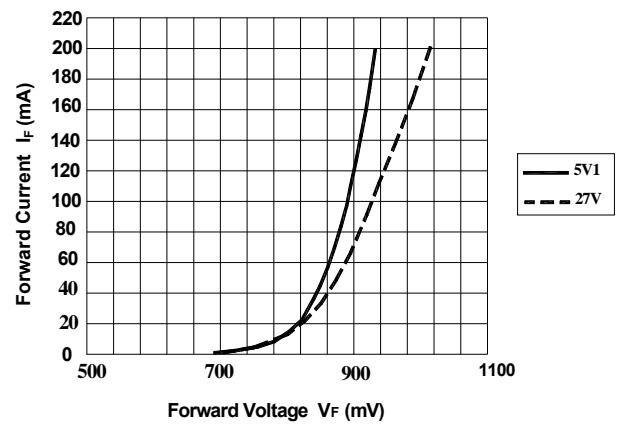
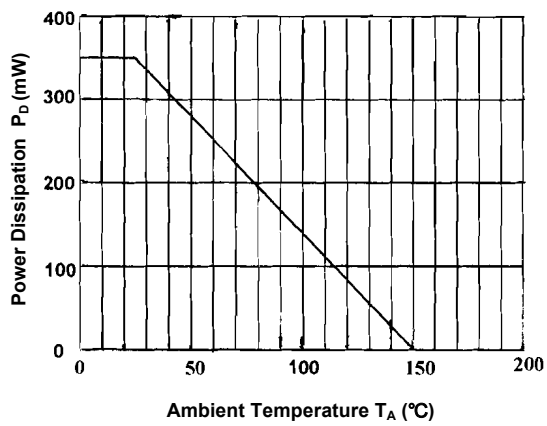
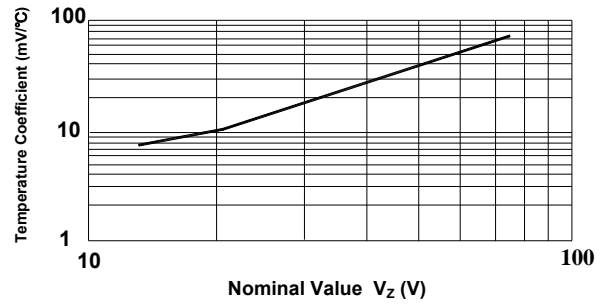
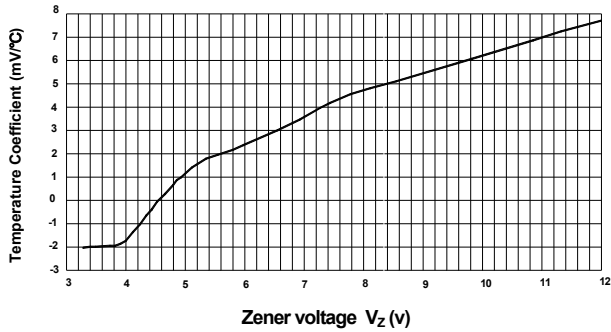
Electrical Characteristics at $T_A = 25\text{ }^\circ\text{C}$

(Ta=25°C, unless otherwise noted)

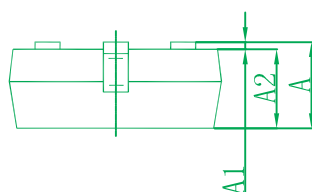
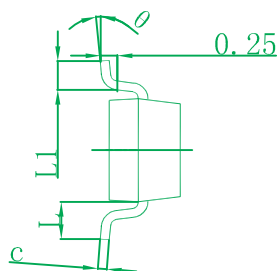
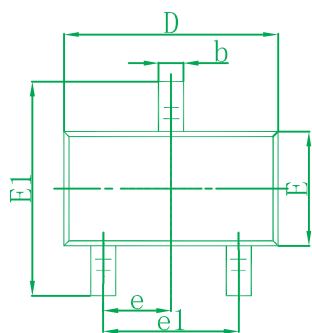
Type	Marking Code	Zener Voltage Range ^{Note1}			I_{ZT} (mA)	Dynamic Impedance		Reverse Current	
		V_{ZT} at I_{ZT}				Z_{ZT} at I_{ZT}	at I_{ZT}	I_R	at V_R
		Min.(V)	Nom.(V)	Max.(V)		Max.(Ω)	(mA)	Max.(μA)	(V)
BZX84C2V4CA	7H	2.2	2.4	2.6	5	100	5	50	1
BZX84C2V7CA	7J	2.5	2.7	2.9	5	100	5	20	1
BZX84C3V0CA	MR	2.8	3.0	3.2	5	95	5	10	1
BZX84C3V3CA	MX	3.1	3.3	3.5	5	95	5	5	1
BZX84C3V6CA	MY	3.4	3.6	3.8	5	90	5	5	1
BZX84C3V9CA	MZ	3.7	3.9	4.1	5	90	5	3	1
BZX84C4V3CA	NA	4	4.3	4.6	5	90	5	3	1
BZX84C4V7CA	NB	4.4	4.7	5	5	80	5	3	2
BZX84C5V1CA	NC	4.8	5.1	5.4	5	60	5	2	2
BZX84C5V6CA	ND	5.2	5.6	6	5	40	5	1	2
BZX84C6V2CA	NE	5.8	6.2	6.6	5	10	5	3	4
BZX84C6V8CA	NF	6.4	6.8	7.2	5	15	5	2	4
BZX84C7V5CA	NH	7	7.5	7.9	5	15	5	1	5
BZX84C8V2CA	NJ	7.7	8.2	8.7	5	15	5	0.7	5
BZX84C9V1CA	NK	8.5	9.1	9.6	5	15	5	0.5	6
BZX84C10CA	NM	9.4	10	10.6	5	20	5	0.2	7
BZX84C11CA	NN	10.4	11	11.6	5	20	5	0.1	8
BZX84C12CA	NP	11.4	12	12.7	5	25	5	0.1	8
BZX84C13CA	NX	12.4	13	14.1	5	30	5	0.1	8
BZX84C15CA	NY	14.3	15	15.8	5	30	5	0.05	10.5
BZX84C16CA	NZ	15.3	16	17.1	5	40	5	0.05	11.2
BZX84C18CA	PA	16.8	18	19.1	5	45	5	0.05	12.6
BZX84C20CA	PB	18.8	20	21.2	5	55	5	0.05	14
BZX84C22CA	PC	20.8	22	23.3	5	55	5	0.05	15.4
BZX84C24CA	PD	22.8	24	25.6	5	70	5	0.05	16.8
BZX84C27CA	PE	25.1	27	28.9	2	80	2	0.05	18.9
BZX84C30CA	PF	28	30	32	2	80	2	0.05	21
BZX84C33CA	PH	31	33	35	2	80	2	0.05	23.1
BZX84C36CA	PJ	34	36	38	2	90	2	0.05	25.2
BZX84C39CA	PM	37	39	41	2	130	2	0.05	27.3
BZX84C43CA	PN	40	43	46	2	150	2	0.05	30.1
BZX84C47CA	PP	44	47	50	2	170	2	0.05	32.9
BZX84C51CA	7K	48	51	54	2	180	2	0.05	35.7
BZX84C56CA	7M	52	56	60	2	200	2	0.05	39.2
BZX84C62CA	7N	58	62	66	2	215	2	0.05	43.4
BZX84C68CA	7P	64	68	72	2	240	2	0.05	47.6
BZX84C75CA	7R	70	75	79	2	255	2	0.05	52.5

Note: 1. V_{ZT} is tested with 20ms pulse.

Typical Characteristic Curves

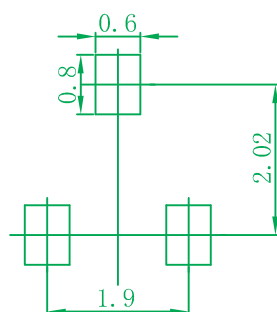


SOT-23 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.050	0.110	0.120
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Ordering Information

Device	Package	Shipping
BZX84C...CA Series	SOT-23	3,000PCS/Reel&7inches