



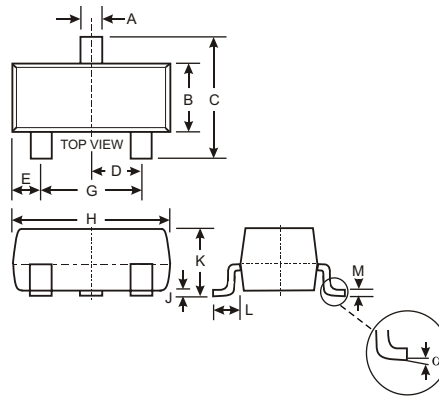
VOLTAGE RANGE: 2.4 - 39V
POWER: 0.3Watts

Features

- Planar Die Construction
- 300mW Power Dissipation
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes

Mechanical Data

- Case: SOT-23, Molded Plastic
- Case material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.008 grams (approx.)



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°

All Dimensions in mm

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Power Dissipation (Note 1)	P_d	300	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	$^\circ\text{C}$



Electrical Characteristics @ T_A = 25°C unless otherwise specified

Type Number	Zener Voltage Range (Note 2)			Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I _{ZT} mV/°C		
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}		I _R	V _R	Min	Max
	Nom (V)	Min (V)	Max (V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)		
BZX84C2V4	2.4	2.2	2.6	5.0	100	600	1.0	50	1.0	-3.5	0
BZX84C2V7	2.7	2.5	2.9	5.0	100	600	1.0	20	1.0	-3.5	0
BZX84C3V0	3.0	2.8	3.2	5.0	95	600	1.0	10	1.0	-3.5	0
BZX84C3V3	3.3	3.1	3.5	5.0	95	600	1.0	5.0	1.0	-3.5	0
BZX84C3V6	3.6	3.4	3.8	5.0	90	600	1.0	5.0	1.0	-3.5	0
BZX84C3V9	3.9	3.7	4.1	5.0	90	600	1.0	3.0	1.0	-3.5	0
BZX84C4V3	4.3	4.0	4.6	5.0	90	600	1.0	3.0	1.0	-3.5	0
BZX84C4V7	4.7	4.4	5.0	5.0	80	500	1.0	3.0	2.0	-3.5	0.2
BZX84C5V1	5.1	4.8	5.4	5.0	60	480	1.0	2.0	2.0	-2.7	1.2
BZX84C5V6	5.6	5.2	6.0	5.0	40	400	1.0	1.0	2.0	-2.0	2.5
BZX84C6V2	6.2	5.8	6.6	5.0	10	150	1.0	3.0	4.0	0.4	3.7
BZX84C6V8	6.8	6.4	7.2	5.0	15	80	1.0	2.0	4.0	1.2	4.5
BZX84C7V5	7.5	7.0	7.9	5.0	15	80	1.0	1.0	5.0	2.5	5.3
BZX84C8V2	8.2	7.7	8.7	5.0	15	80	1.0	0.7	5.0	3.2	6.2
BZX84C9V1	9.1	8.5	9.6	5.0	15	100	1.0	0.5	6.0	3.8	7.0
BZX84C10	10	9.4	10.6	5.0	20	150	1.0	0.2	7.0	4.5	8.0
BZX84C11	11	10.4	11.6	5.0	20	150	1.0	0.1	8.0	5.4	9.0
BZX84C12	12	11.4	12.7	5.0	25	150	1.0	0.1	8.0	6.0	10.0
BZX84C13	13	12.4	14.1	5.0	30	170	1.0	0.1	8.0	7.0	11.0
BZX84C15	15	13.8	15.6	5.0	30	200	1.0	0.1	10.5	9.2	13.0
BZX84C16	16	15.3	17.1	5.0	40	200	1.0	0.1	11.2	10.4	14.0
BZX84C18	18	16.8	19.1	5.0	45	225	1.0	0.1	12.6	12.4	16.0
BZX84C20	20	18.8	21.2	5.0	55	225	1.0	0.1	14.0	14.4	18.0
BZX84C22	22	20.8	23.3	5.0	55	250	1.0	0.1	15.4	16.4	20.0
BZX84C24	24	22.8	25.6	5.0	70	250	1.0	0.1	16.8	18.4	22.0
BZX84C27	27	25.1	28.9	2.0	80	300	0.5	0.1	18.9	21.4	25.3
BZX84C30	30	28.0	32.0	2.0	80	300	0.5	0.1	21.0	24.4	29.4
BZX84C33	33	31.0	35.0	2.0	80	325	0.5	0.1	23.1	27.4	33.4
BZX84C36	36	34.0	38.0	2.0	90	350	0.5	0.1	25.2	30.4	37.4
BZX84C39	39	37.0	41.0	2.0	130	350	0.5	0.1	27.3	33.4	41.2

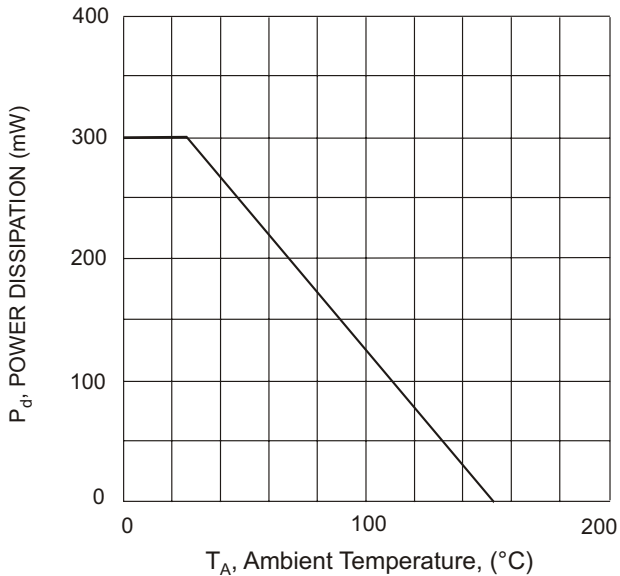


Fig. 1 Power Derating Curve

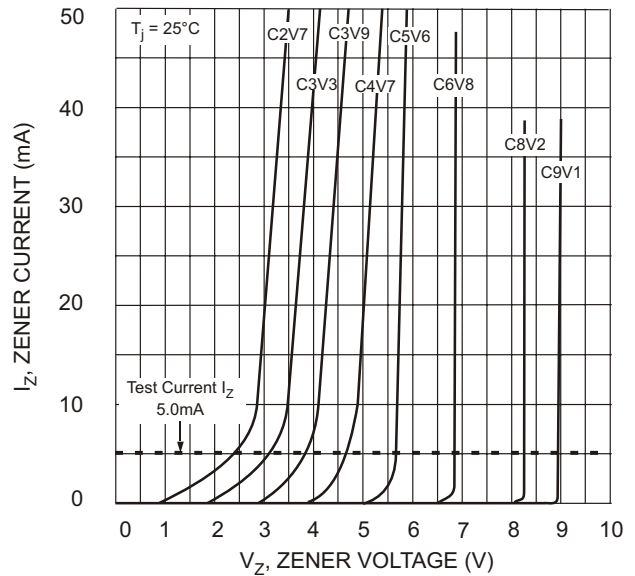


Fig. 2 Zener Breakdown Characteristics

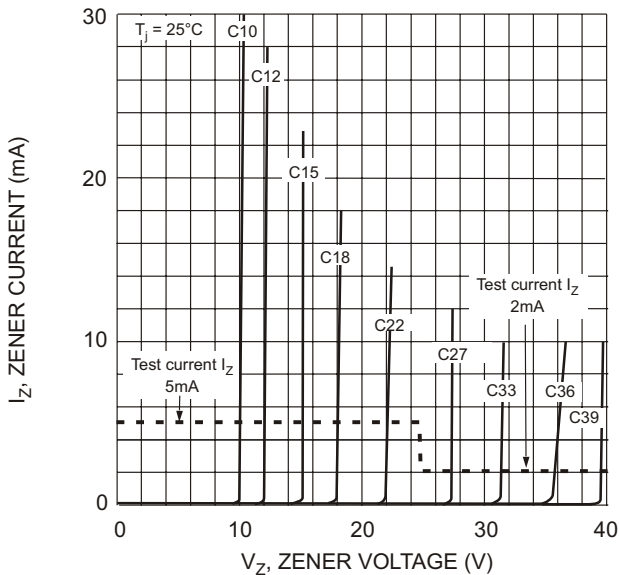


Fig. 3 Zener Breakdown Characteristics

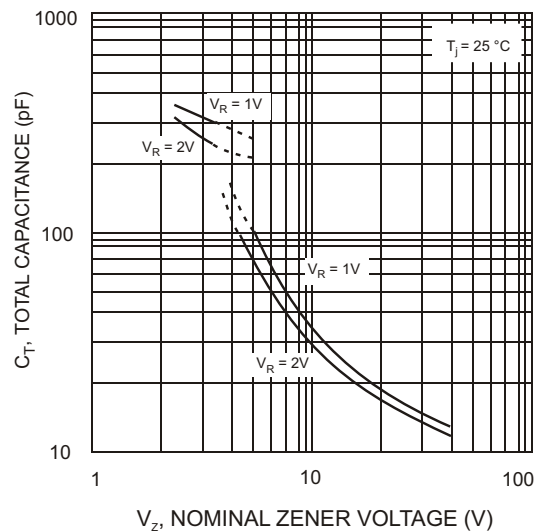


Fig. 4 Total Capacitance vs. Nominal Zener Voltage