

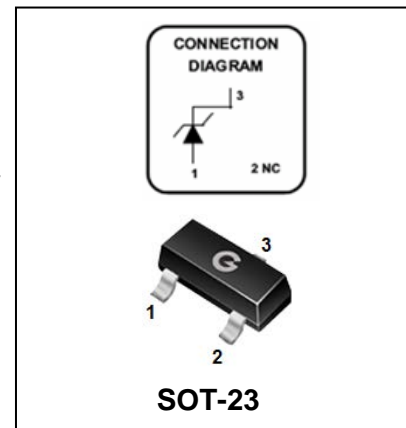
## SMT-Type Zener Diode

## BZX84C2V0 - BZX84C75

### FEATURES

- Large selection of zener voltages: 2.0V ~ 75V
- Tight voltage tolerance:  $\pm 5\%$  for C-series
- Ultra low-profile package well suited for automated assembly
- MSL Class 1 compatible

HF



### APPLICATIONS

- General voltage regulation
- Mobile & handheld systems

### ORDERING INFORMATION

Part Number	Marking	Package
BZX84C2V0 - BZX84C75	See Electrical Characteristics	SOT-23

### MAXIMUM RATING (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ $I_F=10\text{mA}$	$V_F$	0.9	V
Power Dissipation (Collector)	$P_C$	350	mW
Thermal Resistance (Junction-to-Ambient)	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Thermal Resistance (Junction-to-Case)	$R_{\theta JC}$	295	$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

Note: These ratings are limiting values above which the serviceability of the diodes may be impaired.

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### ELECTRICAL CHARACTERISTICS (@ T<sub>A</sub> = 25°C unless otherwise specified)

Part Number	Marking Code	Zener Voltage V <sub>Z</sub> (V)			@ I <sub>ZT</sub> (mA)	Maximum Zener Impedance			Maximum Reverse Current I <sub>R</sub> (μA)	@ V <sub>R</sub> (V)
		Min.	Typ.	Max.		Z <sub>ZT</sub> (Ω) @ I <sub>ZT</sub>	Z <sub>ZK</sub> (Ω)	@ I <sub>ZK</sub> (mA)		
BZX84C2V0	Z10	1.90	2.00	2.10	5	100	600	1.0	150.000	1.0
BZX84C2V2	Z19	2.09	2.20	2.31	5	100	600	1.0	150.000	1.0
BZX84C2V4	Z11	2.28	2.40	2.52	5	100	600	1.0	50.000	1.0
BZX84C2V7	Z12	2.57	2.70	2.84	5	100	600	1.0	20.000	1.0
BZX84C3V0	Z13	2.85	3.00	3.15	5	95	600	1.0	10.000	1.0
BZX84C3V3	Z14	3.14	3.30	3.47	5	95	600	1.0	5.000	1.0
BZX84C3V6	Z15	3.42	3.60	3.78	5	90	600	1.0	5.000	1.0
BZX84C3V9	Z16	3.71	3.90	4.10	5	90	600	1.0	3.000	1.0
BZX84C4V3	Z17	4.09	4.30	4.52	5	90	600	1.0	3.000	1.0
BZX84C4V7	Z1	4.47	4.70	4.94	5	80	500	1.0	3.000	2.0
BZX84C5V1	Z2	4.85	5.10	5.36	5	60	480	1.0	2.000	2.0
BZX84C5V6	Z3	5.32	5.60	5.88	5	40	400	1.0	1.000	2.0
BZX84C6V2	Z4	5.89	6.20	6.51	5	10	150	1.0	3.000	4.0
BZX84C6V8	Z5	6.46	6.80	7.14	5	15	80	1.0	2.000	4.0
BZX84C7V5	Z6	7.13	7.50	7.88	5	15	80	1.0	1.000	5.0
BZX84C8V2	Z7	7.79	8.20	8.61	5	15	80	1.0	0.700	5.0
BZX84C9V1	Z8	8.65	9.10	9.56	5	15	100	1.0	0.500	6.0
BZX84C10	Z9	9.50	10.00	10.50	5	20	150	1.0	0.200	7.0
BZX84C11	Y1•	10.45	11.00	11.55	5	20	150	1.0	0.100	8.0
BZX84C12	Y2•	11.40	12.00	12.60	5	25	150	1.0	0.100	8.0
BZX84C13	Y3	12.35	13.00	13.65	5	30	170	1.0	0.100	8.0
BZX84C15	Y4	14.25	15.00	15.75	5	30	200	1.0	0.100	10.5
BZX84C16	Y5	15.20	16.00	16.80	5	40	200	1.0	0.100	11.2
BZX84C18	Y6	17.10	18.00	18.90	5	45	225	1.0	0.100	12.6
BZX84C20	Y7	19.00	20.00	21.00	5	55	225	1.0	0.100	14.0
BZX84C22	Y8	20.90	22.00	23.10	5	55	250	1.0	0.100	15.4
BZX84C24	Y9	22.80	24.00	25.20	5	70	250	1.0	0.100	16.8
BZX84C27	Y10	25.65	27.00	28.35	2	80	300	0.5	0.100	18.9
BZX84C30	Y11	28.50	30.00	31.50	2	80	300	0.5	0.100	21.0
BZX84C33	Y12	31.35	33.00	34.65	2	80	325	0.5	0.100	23.1
BZX84C36	Y13	34.20	36.00	37.80	2	90	350	0.5	0.100	25.2
BZX84C39	Y14	37.05	39.00	40.95	2	130	350	0.5	0.100	27.3
BZX84C43	Y15	40.85	43.00	45.15	2	150	375	0.5	0.100	30.1
BZX84C47	Y16	44.65	47.00	49.35	2	170	375	0.5	0.100	32.9
BZX84C51	Y17	48.45	51.00	53.55	2	180	400	0.5	0.100	35.7
BZX84C56	Y18	53.20	56.00	58.80	2	200	425	0.5	0.050	39.2
BZX84C62	Y19	58.90	62.00	65.10	2	215	450	0.5	0.050	43.4
BZX84C68	Y20	64.60	68.00	71.40	2	240	475	0.5	0.050	47.6
BZX84C75	Y21	71.25	75.00	78.75	2	255	500	0.5	0.050	52.5

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TYPICAL CHARACTERISTICS (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)

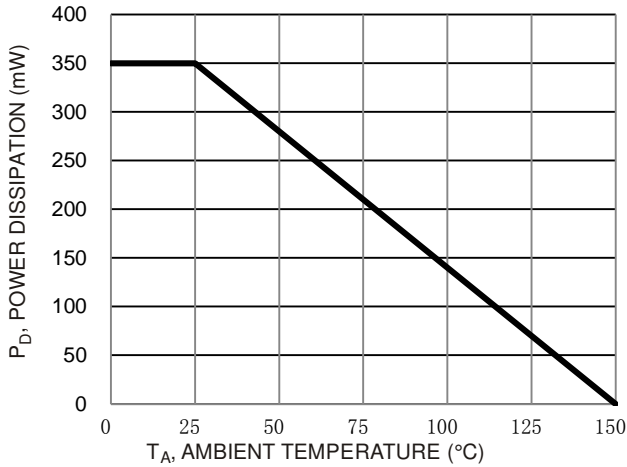


Fig. 1 Power Derating Curve

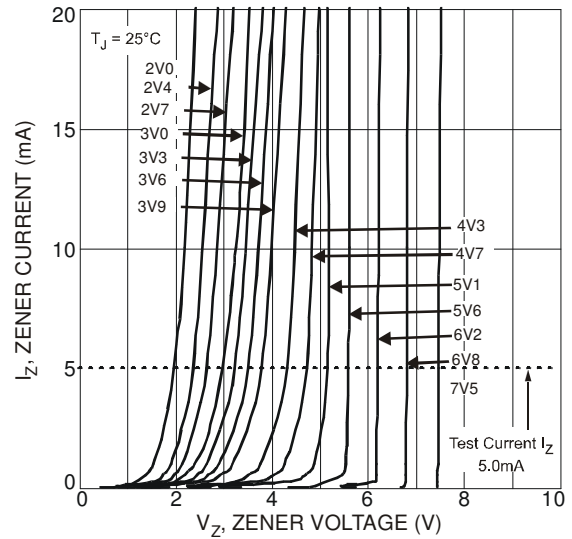


Fig. 2 Typical Zener Breakdown Characteristics

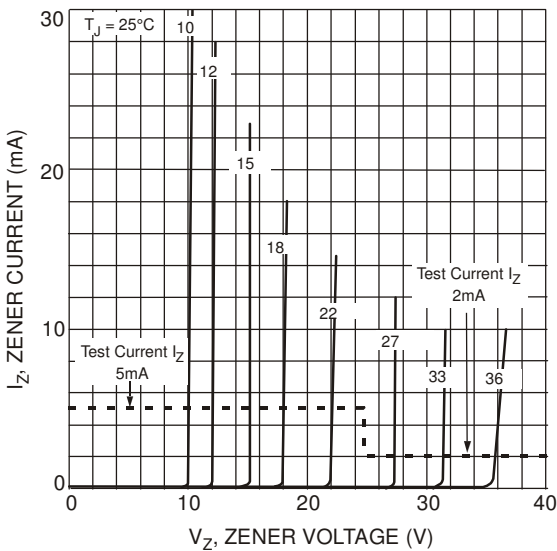


Fig. 3 Typical Zener Breakdown Characteristics

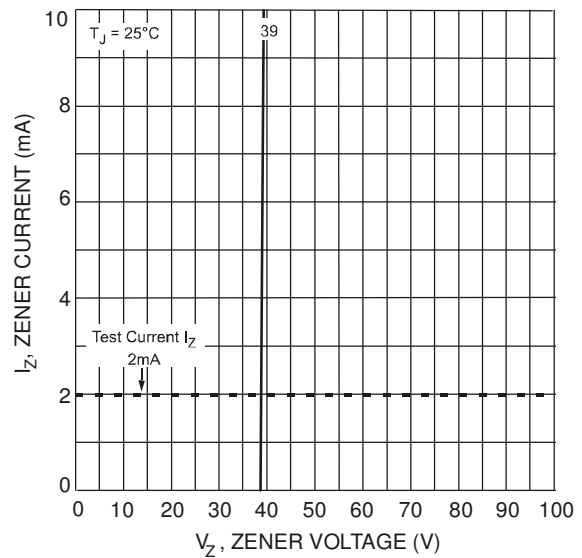


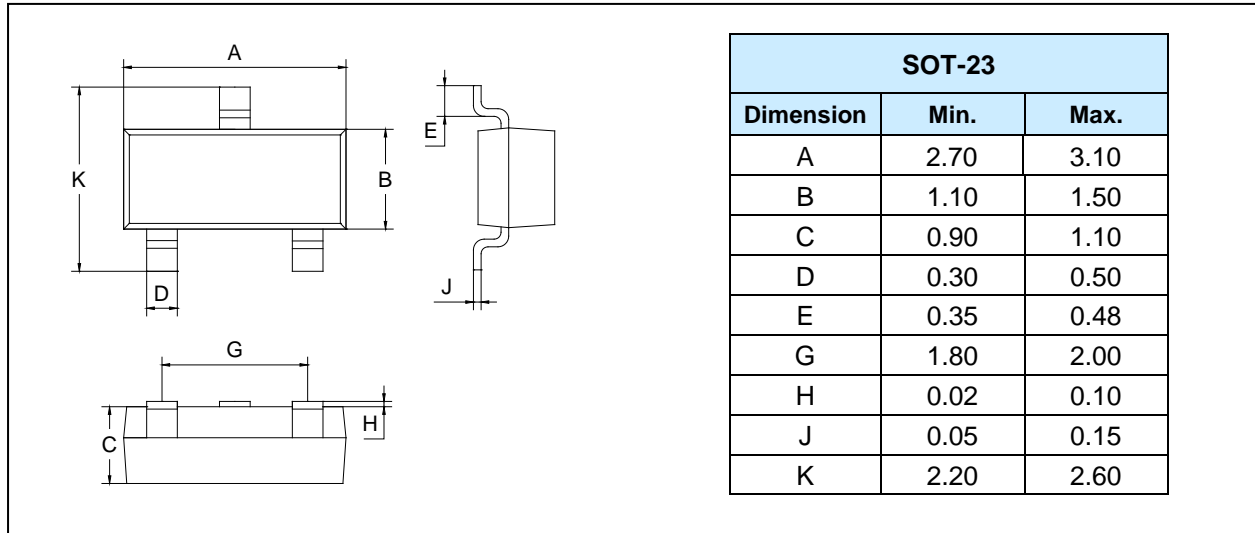
Fig. 4 Typical Zener Breakdown Characteristics

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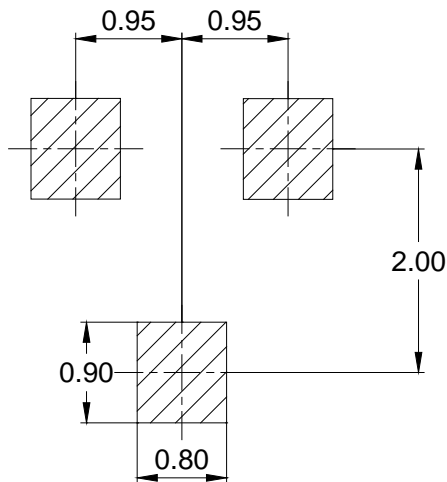
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### PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



### MOUNTING PAD LAYOUT (Unit: mm)



### PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
BZX84C2V0 - BZX84C75	SOT-23	3000pcs / Tape & Reel

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