

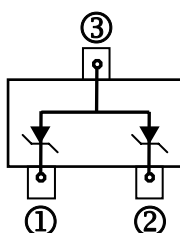
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

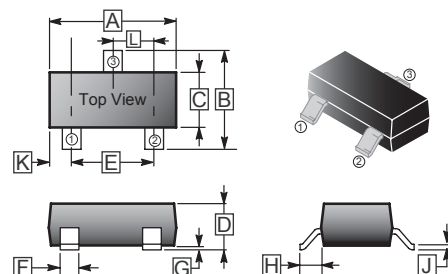
- Planar Die Construction
- 300 mW Power Dissipation Rating
- Dual Zeners in Common Anode Configuration
- Ideally Suited for Automated Assembly Process
- Δv_z for both diodes in one case is $\leq 5\%$.

PACKAGING INFORMATION

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams
- Weight: 0.0080 g (Approximately)



SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.80	2.00	L	0.89	1.02
F	0.30	0.50			

MARKING

KD□

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNITS
Power Dissipation	P_D	300	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	417	$^\circ\text{C} / \text{W}$
Junction and Storage Temperature Range	T_J, T_{STG}	-65 ~ 150	$^\circ\text{C}$

1. FR-5 = 1.0 X 0.75 X 0.062 in.

2. Alumina = 0.4 X 0.3 X 0.024 in. 99.5% alumina.

ELECTRICAL RATINGS (Rating 25°C ambient temperature unless otherwise specified)

Type Number	Marking	V_Z (note1) @ $I_{ZT} = 5.0 \text{ mA}$		Z_{ZT} (note2) @ $I_{ZT} = 5.0 \text{ mA}$	Z_{ZK} (note2) @ $I_{ZK} = 1.0 \text{ mA}$	Temperature Coefficient	V_R (max) (note1) @ $I_R = 0.1 \mu\text{A}$
		V (Min)	V (Max)	Ω (Max)	Ω	T_c (Typ)(%/°C)	V
BZD84C2V7	KD1	2.5	2.9	83.0	500	-0.065	-
BZD84C3V0	KD2	2.8	3.2	95.0	500	-0.060	-
BZD84C3V3	KD3	3.1	3.5	95.0	500	-0.055	-
BZD84C3V6	KD4	3.4	3.8	95.0	500	-0.055	-
BZD84C3V9	KD5	3.7	4.1	95.0	500	-0.050	-
BZD84C4V3	KD6	4.0	4.6	95.0	500	-0.035	-
BZD84C4V7	KD7	4.4	5.0	78.0	500	-0.015	-
BZD84C5V1	KD8	4.8	5.4	60.0	480	+0.005	0.8
BZD84C5V6	KD9	5.2	6.0	40.0	400	+0.020	1.0
BZD84C6V2	KDA	5.8	6.6	10.0	200	+0.030	2.0
BZD84C6V8	KDB	6.4	7.2	8.0	150	+0.045	3.0
BZD84C7V5	KDC	7.0	7.9	7.0	50	+0.050	5.0
BZD84C8V2	KDD	7.7	8.7	7.0	50	+0.055	6.0
BZD84C9V1	KDE	8.5	9.6	10.0	50	+0.065	7.0
BZD84C10	KDF	9.4	10.6	15.0	70	+0.065	7.5
BZD84C11	KDG	10.4	11.6	20.0	70	+0.070	8.5
BZD84C12	KDH	11.4	12.7	20.0	90	+0.075	9.0
BZD84C13	KDI	12.4	14.1	25.0	110	+0.080	10.0
BZD84C15	KDJ	13.8	15.6	30.0	110	+0.080	11.0
BZD84C16	KDK	15.3	17.1	40.0	170	+0.090	12.0
BZD84C18	KDL	16.8	19.1	50.0	170	+0.090	14.0
BZD84C20	KDM	18.8	21.2	50.0	220	+0.090	15.0
BZD84C22	KDN	20.8	23.3	55.0	220	+0.090	17.0
BZD84C24	KDO	22.8	25.6	80.0	220	+0.090	18.0
BZD84C27	KDP	25.1	28.9	80.0	250	+0.090	20.0
BZD84C30	KDQ	28.0	32.0	80.0	250	+0.090	22.5
BZD84C33	KDR	31.0	35.0	80.0	250	+0.090	25.0
BZD84C36	KDS	34.0	38.0	90.0	250	+0.090	27.0
BZD84C39	KDT	37.0	41.0	90.0	300	+0.110	29.0

Notes: 1. Short duration test pulse used to minimize self-heating effect.
2. $f = 1 \text{ KHz}$

CHARACTERISTIC CURVES

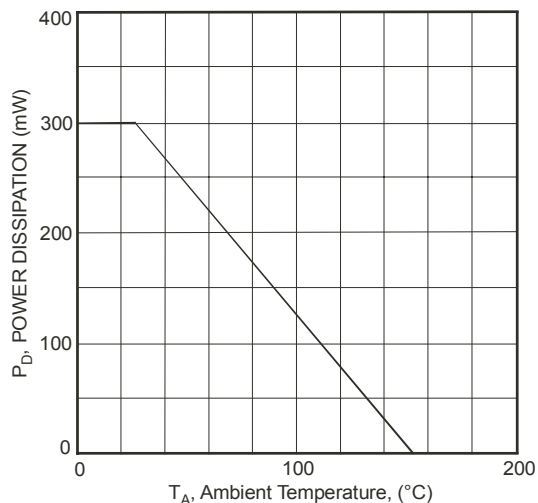


Fig. 1 Power Derating Curve

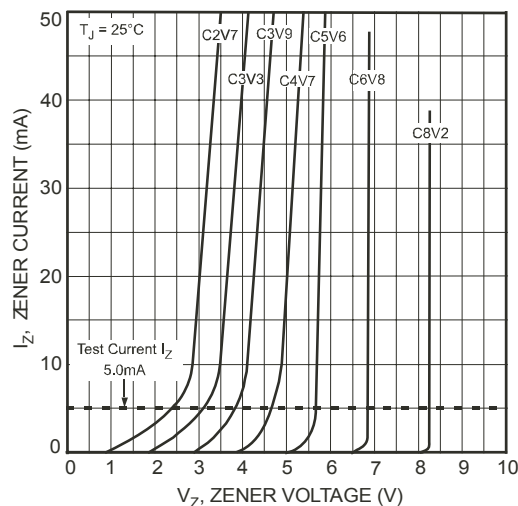


Fig. 2 Typical Zener Breakdown Characteristics

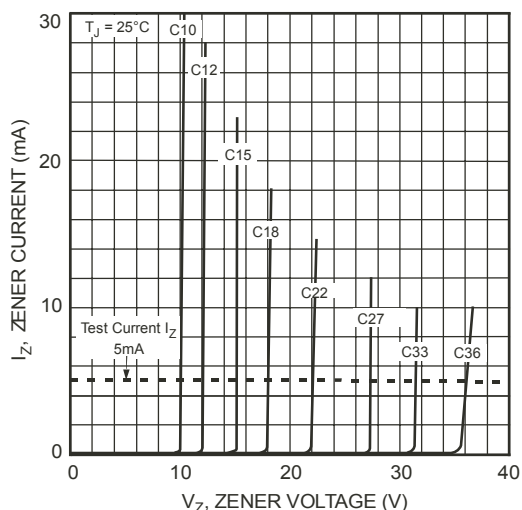


Fig. 3 Typical Zener Breakdown Characteristics

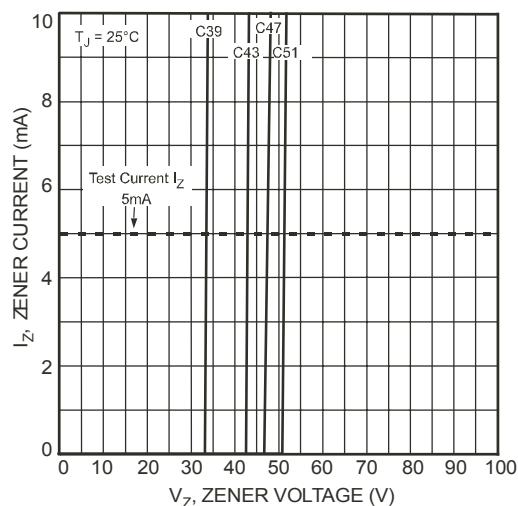


Fig. 4 Typical Zener Breakdown Characteristics

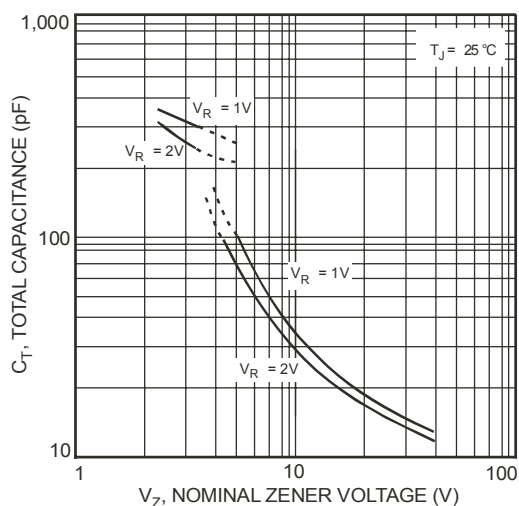


Fig. 5 Typical Total Capacitance vs. Nominal Zener Voltage