

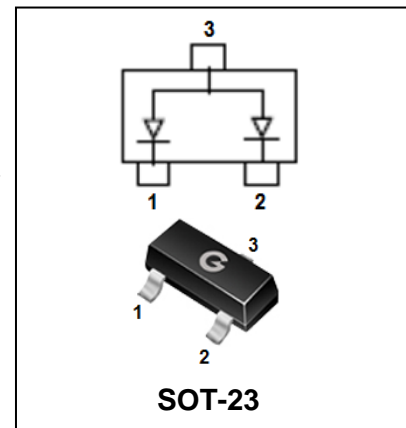
## SMT-Type Zener Diode

## AZ23C2V4-AZ23C51

### FEATURES

- Large selection of zener voltages: 2.4V ~ 51V
- 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
AZ23C2V4 - AZ23C51	See Electrical Characteristics	SOT-23

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

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	300	mW
Thermal Resistance (Junction-to-Ambient)	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
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.

## SMT-Type Zener Diode

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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			Typical Temperature Coefficient T <sub>C</sub> (%/°C)	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)			
AZ23C2V4	KD0	2.28	2.40	2.52	5	85	600	1.0	-0.065	100.000	1.0
AZ23C2V7	KD1	2.57	2.70	2.84	5	83	600	1.0	-0.065	75.000	1.0
AZ23C3V0	KD2	2.85	3.00	3.15	5	95	600	1.0	-0.060	50.000	1.0
AZ23C3V3	KD3	3.14	3.30	3.47	5	95	600	1.0	-0.055	25.000	1.0
AZ23C3V6	KD4	3.42	3.60	3.78	5	95	600	1.0	-0.055	15.000	1.0
AZ23C3V9	KD5	3.71	3.90	4.10	5	95	600	1.0	-0.050	10.000	1.0
AZ23C4V3	KD6	4.09	4.30	4.52	5	95	600	1.0	-0.035	5.000	1.0
AZ23C4V7	KD7	4.47	4.70	4.94	5	78	500	1.0	-0.015	5.000	2.0
AZ23C5V1	KD8	4.85	5.10	5.36	5	60	480	1.0	0.005	0.100	0.8
AZ23C5V6	KD9	5.32	5.60	5.88	5	40	400	1.0	0.020	0.100	1.0
AZ23C6V2	KDA	5.89	6.20	6.51	5	10	200	1.0	0.030	0.100	2.0
AZ23C6V8	KDB	6.46	6.80	7.14	5	8	150	1.0	0.045	0.100	3.0
AZ23C7V5	KDC	7.13	7.50	7.88	5	7	50	1.0	0.050	0.100	5.0
AZ23C8V2	KDD	7.79	8.20	8.61	5	7	50	1.0	0.055	0.100	6.0
AZ23C9V1	KDE	8.65	9.10	9.56	5	10	50	1.0	0.065	0.100	7.0
AZ23C10	KDF	9.50	10.00	10.50	5	15	70	1.0	0.065	0.100	7.5
AZ23C11	KDG	10.45	11.00	11.55	5	20	70	1.0	0.070	0.100	8.5
AZ23C12	KDH	11.40	12.00	12.60	5	20	90	1.0	0.075	0.100	9.0
AZ23C13	KDI	12.35	13.00	13.65	5	25	110	1.0	0.080	0.100	10.0
AZ23C15	KDJ	14.25	15.00	15.75	5	30	110	1.0	0.080	0.100	11.0
AZ23C16	KDK	15.20	16.00	16.80	5	40	170	1.0	0.090	0.100	12.0
AZ23C18	KDL	17.10	18.00	18.90	5	50	170	1.0	0.090	0.100	14.0
AZ23C20	KDM	19.00	20.00	21.00	5	50	220	1.0	0.090	0.100	15.0
AZ23C22	KDN	20.90	22.00	23.10	5	55	220	1.0	0.090	0.100	17.0
AZ23C24	KDO	22.80	24.00	25.20	5	80	220	1.0	0.090	0.100	18.0
AZ23C27	KDP	25.65	27.00	28.35	5	80	250	1.0	0.090	0.100	20.0
AZ23C30	KDQ	28.50	30.00	31.50	5	80	250	1.0	0.090	0.100	22.5
AZ23C33	KDR	31.35	33.00	34.65	5	80	250	1.0	0.090	0.100	25.0
AZ23C36	KDS	34.20	36.00	37.80	5	90	250	1.0	0.090	0.100	27.0
AZ23C39	KDT	37.05	39.00	40.95	5	90	300	1.0	0.110	0.100	29.0
AZ23C43	KDU	40.85	43.00	45.15	5	100	700	1.0	0.110	0.100	32.0
AZ23C47	KDV	44.65	47.00	49.35	5	100	750	1.0	0.110	0.100	35.0
AZ23C51	KDW	48.45	51.00	53.55	5	100	750	1.0	0.1	0.100	38.0

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AZ23C2V4-AZ23C51

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

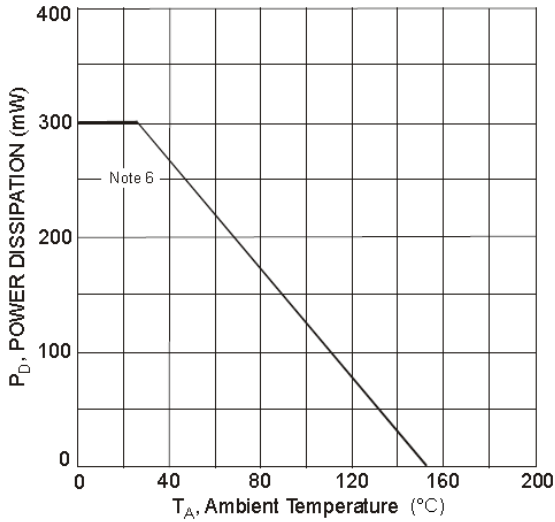


Fig. 1 Power Derating Curve

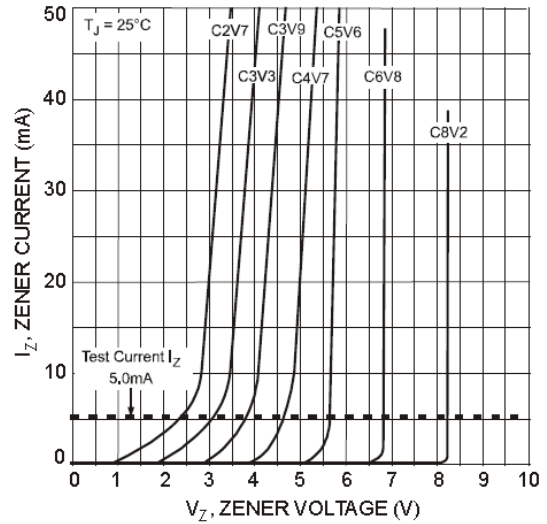


Fig. 2 Typical Zener Breakdown Characteristics

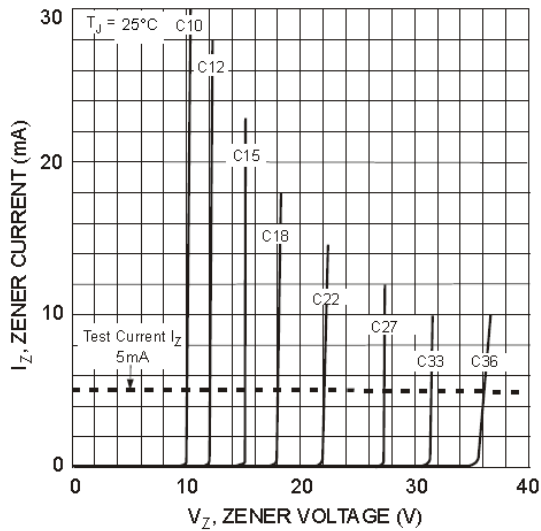


Fig. 3 Typical Zener Breakdown Characteristics

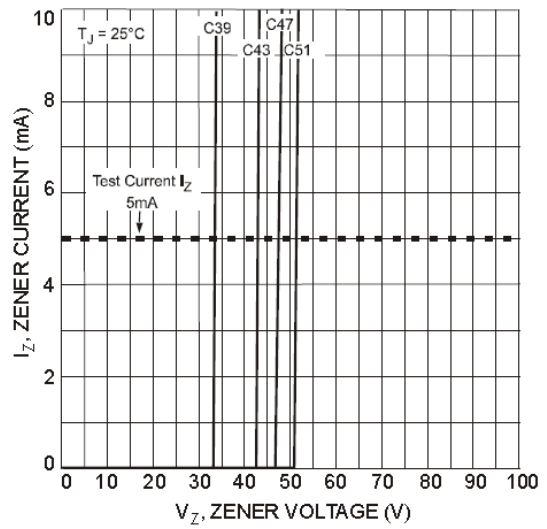


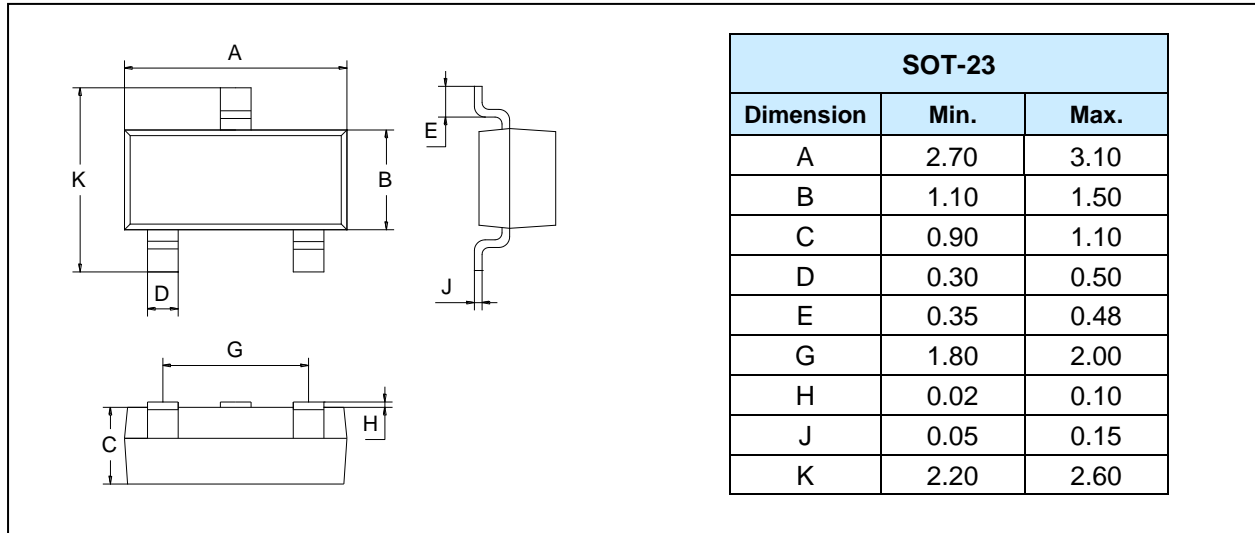
Fig. 4 Typical Zener Breakdown Characteristics

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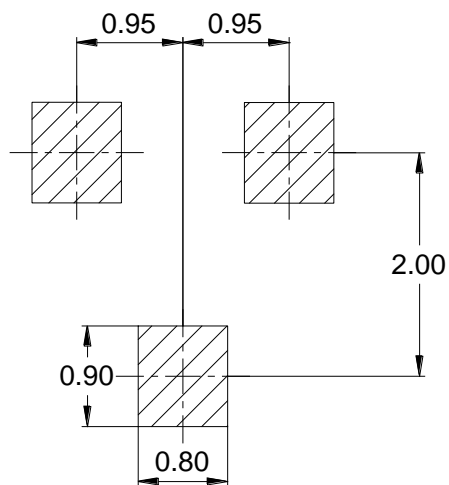
## AZ23C2V4-AZ23C51

### PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



### MOUNTING PAD LAYOUT (Unit: mm)



### PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
AZ23C2V4 - AZ23C51	SOT-23	3000 pcs / Tape & Reel

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