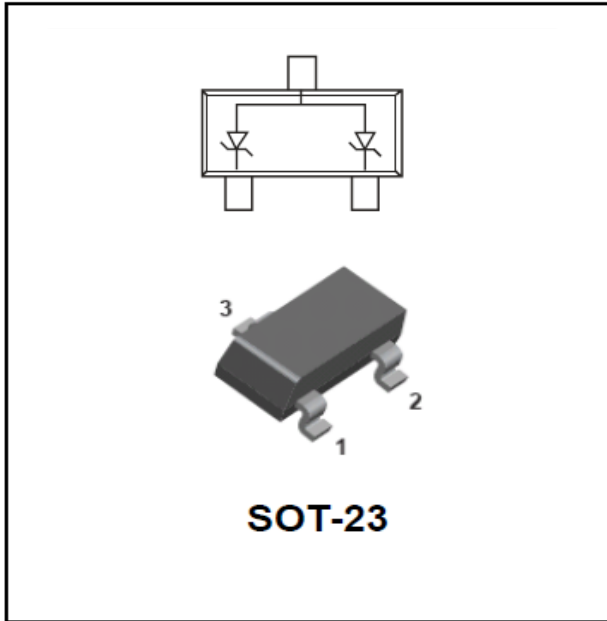


## Zener Diode



### Features

- Dual zeners in common anode configuration.
- 300mW power dissipation rating.
- Ideally suited for automatic insertion.
- $\Delta V_z$  for both diodes in one case is  $\leq 5\%$ .

### ■ Limiting Values (Absolute Maximum Rating, $T_a=25^\circ\text{C}$ Unless otherwise specified)

Characteristic	Symbol	Value	Units
Power Dissipation	$P_D$	300	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C} / \text{W}$
Maximum junction temperature	$T_j$	-55~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ\text{C}$

### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
AZ23C2V4-AZ23C47	F2	Approximate 0.008	3000	30000	120000	7" reel



# AZ23C2V4-AZ23C47

## ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Type Number	Marking Code	Nominal Zener Voltage			Maximum Zener Impedance				Min Reverse Leakage Current	
		V <sub>Z</sub> (V)@ I <sub>ZT</sub>			Z <sub>ZT</sub> @I <sub>ZT</sub>		Z <sub>Zk</sub> @I <sub>Zk</sub>		I <sub>R</sub> @ V <sub>R</sub>	
		Min.	Typ.	Max.	Ω	mA	Ω	mA	uA	V
AZ23C2V4	KD0	2.28	2.4	2.56	100	5	600	1	50	1
AZ23C2V7	KD1	2.5	2.7	2.9	100	5	600	1	20	1
AZ23C3V0	KD2	2.8	3.0	3.2	95	5	600	1	10	1
AZ23C3V3	KD3	3.1	3.3	3.5	95	5	600	1	5	1
AZ23C3V6	KD4	3.4	3.6	3.8	90	5	600	1	5	1
AZ23C3V9	KD5	3.7	3.9	4.1	90	5	600	1	3	1
AZ23C4V3	KD6	4.0	4.3	4.6	90	5	600	1	3	1
AZ23C4V7	KD7	4.4	4.7	5.0	80	5	500	1	3	2
AZ23C5V1	KD8	4.8	5.1	5.4	60	5	480	1	2	2
AZ23C5V6	KD9	5.2	5.6	6.0	40	5	400	1	1	2
AZ23C6V2	KDA	5.8	6.2	6.6	10	5	150	1	3	4
AZ23C6V8	KDB	6.4	6.8	7.2	15	5	80	1	2	4
AZ23C7V5	KDC	7.0	7.5	7.9	15	5	80	1	1	5
AZ23C8V2	KDD	7.7	8.2	8.7	15	5	80	1	0.7	5
AZ23C9V1	KDE	8.5	9.1	9.6	15	5	100	1	0.5	6
AZ23C10	KDF	9.4	10	10.6	20	5	150	1	0.2	7
AZ23C11	KDG	10.4	11	11.6	20	5	150	1	0.1	8
AZ23C12	KDH	11.4	12	12.7	25	5	150	1	0.1	8
AZ23C13	KDI	12.4	13	14.1	30	5	170	1	0.1	8
AZ23C15	KDJ	13.8	15	15.6	30	5	200	1	0.1	10.5
AZ23C16	KDK	15.3	16	17.1	40	5	200	1	0.1	11.2
AZ23C18	KDL	16.8	18	19.1	45	5	225	1	0.1	12.6
AZ23C20	KDM	18.8	20	21.2	55	5	225	1	0.1	14
AZ23C22	KDN	20.8	22	23.3	55	5	250	1	0.1	15.4
AZ23C24	KDO	22.8	24	25.6	70	5	250	1	0.1	16.8
AZ23C27	KDP	25.1	27	28.9	80	2	300	1	0.1	18.9
AZ23C30	KDQ	28	30	32	80	2	300	1	0.1	21.0
AZ23C33	KDR	31	33	35	80	2	325	1	0.1	23.1
AZ23C36	KDS	34	36	38	90	2	350	1	0.1	25.2
AZ23C39	KDT	37	39	41	130	2	350	1	0.1	27.3
AZ23C43	D30	40.85	43	45.15	150	5	375	1	0.1	30.1
AZ23C47	D31	44.65	47	49.35	170	5	375	1	0.1	32.9

Notes: 1. Short duration test pulse used to minimize self-heating effect.  
2. f=1kHz



# AZ23C2V4-AZ23C47

## ■ Characteristics(Typical)

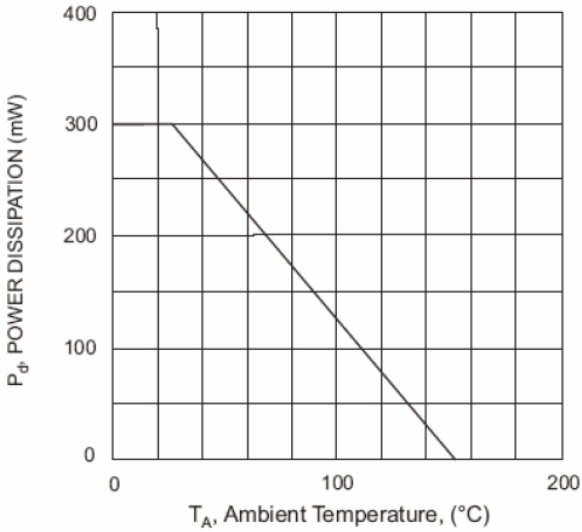


Fig. 1 Power Derating Curve

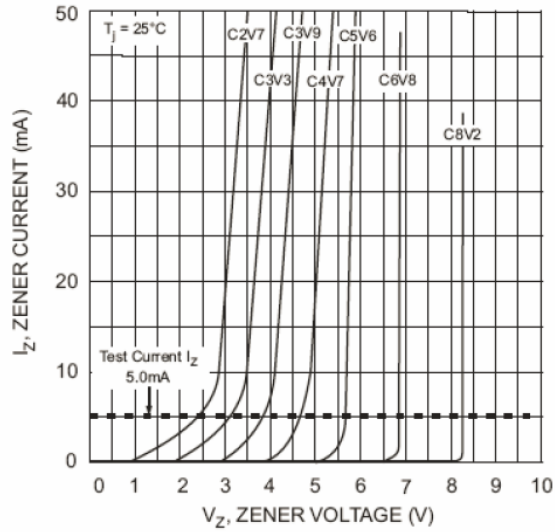


Fig. 2 Zener Breakdown Characteristics

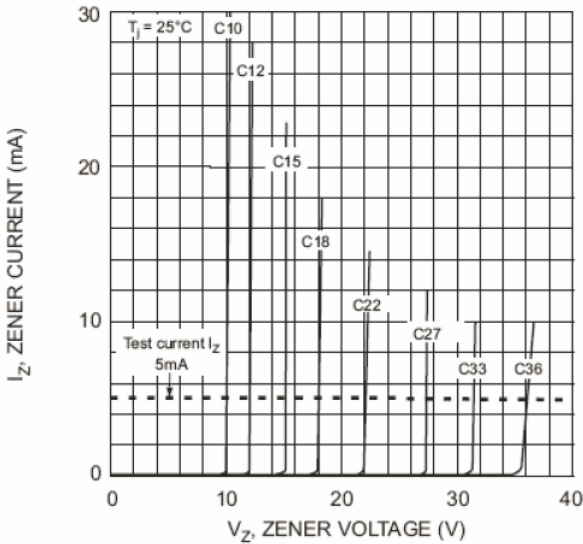


Fig. 3 Zener Breakdown Characteristics

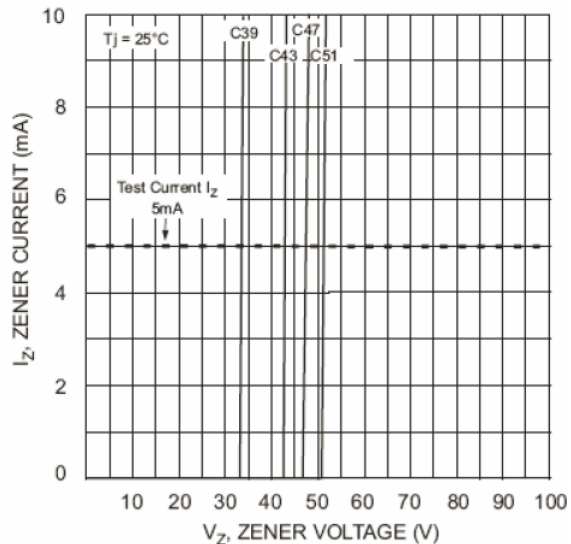


Fig. 4 Zener Breakdown Characteristics

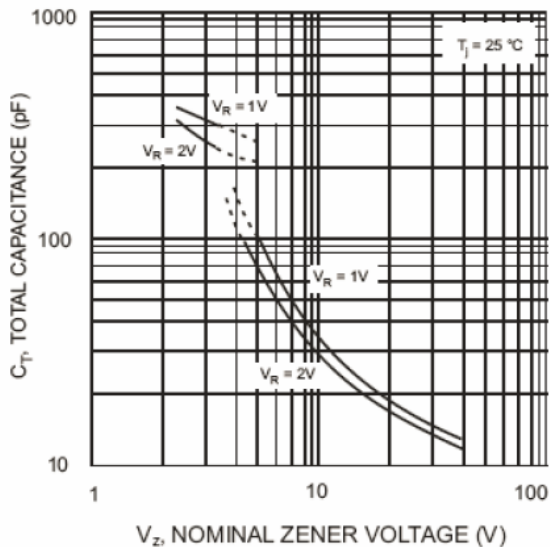
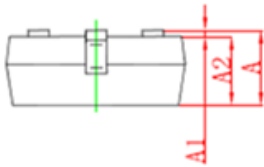
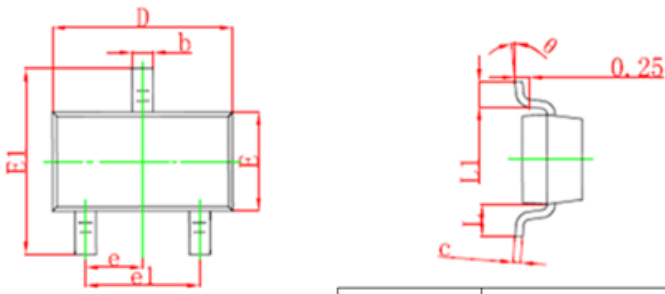


Fig. 5 Total Capacitance vs. Nominal Zener Voltage



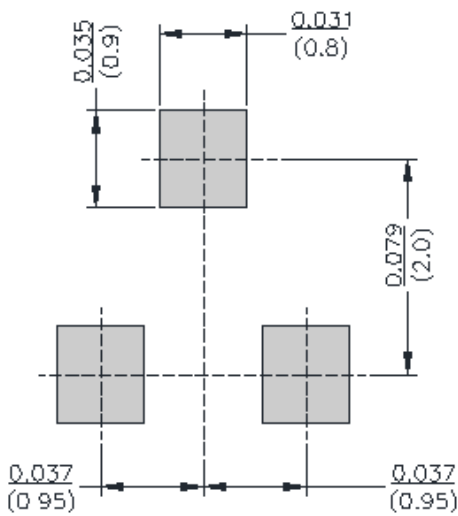
# AZ23C2V4-AZ23C47

## ■SOT-23 Package Outline Dimensions



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	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

## ■SOT-23 Suggested Pad Layout





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