

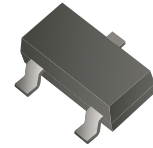
AZ23C2V4-HF Thru. AZ23C51-HF

Zener Voltage: 2.4V to 51V

Power Dissipation: 300mW

RoHS Device

Halogen Free

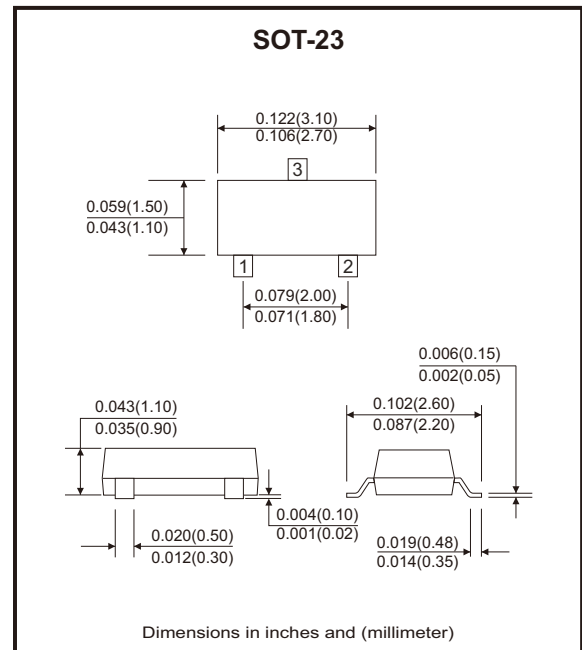


Features

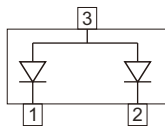
- Large selection of zener voltages: 2.4V~51V.
- Tight voltage tolerance: $\pm 5\%$.
- Ultra low-profile package well suited for automated assembly.

Mechanical data

- Case: SOT-23, molded plastic.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power dissipation	P_D	300	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^\circ\text{C}$

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

Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number	Zener Voltage			Maximum Zener Impedance @ I _{ZK} =1mA			Typical Temperature Coefficient T _C (%/°C)	Maximum Reverse Current I _R (μA)	@V _R (V)	Marking Code
	V _Z (V)			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK}				
	Min	Typ	Max	(mA)	(Ω)	(Ω)				
AZ23C2V4-HF	2.28	2.40	2.52	5	85	600	-0.065	100	1.0	KD0
AZ23C2V7-HF	2.57	2.70	2.84	5	83	600	-0.065	75	1.0	KD1
AZ23C3V0-HF	2.85	3.00	3.15	5	95	600	-0.060	50	1.0	KD2
AZ23C3V3-HF	3.14	3.30	3.47	5	95	600	-0.055	25	1.0	KD3
AZ23C3V6-HF	3.42	3.60	3.78	5	95	600	-0.055	15	1.0	KD4
AZ23C3V9-HF	3.71	3.90	4.10	5	95	600	-0.050	10	1.0	KD5
AZ23C4V3-HF	4.09	4.30	4.52	5	95	600	-0.035	5	1.0	KD6
AZ23C4V7-HF	4.47	4.70	4.94	5	78	500	-0.015	5	2.0	KD7
AZ23C5V1-HF	4.85	5.10	5.36	5	60	480	0.005	0.1	0.8	KD8
AZ23C5V6-HF	5.32	5.60	5.88	5	40	400	0.020	0.1	1.0	KD9
AZ23C6V2-HF	5.89	6.20	6.51	5	10	200	0.030	0.1	2.0	KDA
AZ23C6V8-HF	6.46	6.80	7.14	5	8	150	0.045	0.1	3.0	KDB
AZ23C7V5-HF	7.13	7.50	7.88	5	7	50	0.050	0.1	5.0	KDC
AZ23C8V2-HF	7.79	8.20	8.61	5	7	50	0.055	0.1	6.0	KDD
AZ23C9V1-HF	8.65	9.10	9.56	5	10	50	0.065	0.1	7.0	KDE
AZ23C10-HF	9.50	10.00	10.50	5	15	70	0.065	0.1	7.5	KDF
AZ23C11-HF	10.45	11.00	11.55	5	20	70	0.070	0.1	8.5	KDG
AZ23C12-HF	11.40	12.00	12.60	5	20	90	0.075	0.1	9.0	KDH
AZ23C13-HF	12.35	13.00	13.65	5	25	110	0.080	0.1	10.0	KDI
AZ23C15-HF	14.25	15.00	15.75	5	30	110	0.080	0.1	11.0	KDJ
AZ23C16-HF	15.20	16.00	16.80	5	40	170	0.090	0.1	12.0	KDK
AZ23C18-HF	17.10	18.00	18.90	5	50	170	0.090	0.1	14.0	KDL
AZ23C20-HF	19.00	20.00	21.00	5	50	220	0.090	0.1	15.0	KDM
AZ23C22-HF	20.90	22.00	23.10	5	55	220	0.090	0.1	17.0	KDN
AZ23C24-HF	22.80	24.00	25.20	5	80	220	0.090	0.1	18.0	KDO
AZ23C27-HF	25.65	27.00	28.35	5	80	250	0.090	0.1	20.0	KDP
AZ23C30-HF	28.50	30.00	31.50	5	80	250	0.090	0.1	22.5	KDQ
AZ23C33-HF	31.35	33.00	34.65	5	80	250	0.090	0.1	25.0	KDR
AZ23C36-HF	34.20	36.00	37.80	5	90	250	0.090	0.1	27.0	KDS
AZ23C39-HF	37.05	39.00	40.95	5	90	300	0.110	0.1	29.0	KDT
AZ23C43-HF	40.85	43.00	45.15	5	100	700	0.110	0.1	32.0	KDU, D30
AZ23C47-HF	44.65	47.00	49.35	5	100	750	0.110	0.1	35.0	KDV, D31
AZ23C51-HF	48.45	51.00	53.55	5	100	750	0.100	0.1	38.0	KDW, D32

Company reserves the right to improve product design, functions and reliability without notice. REV:A

Rating and Characteristic Curves (AZ23C2V4-HF Thru. ACZ23C51-HF)

Fig.1 - Power Derating Curve

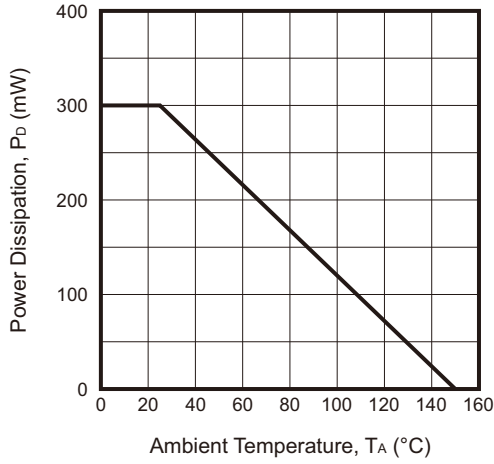


Fig.2 - Typical Zener Breakdown Characteristics

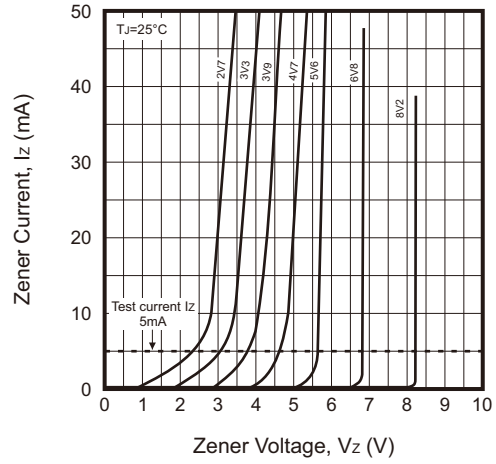


Fig.3 - Typical Zener Breakdown Characteristics

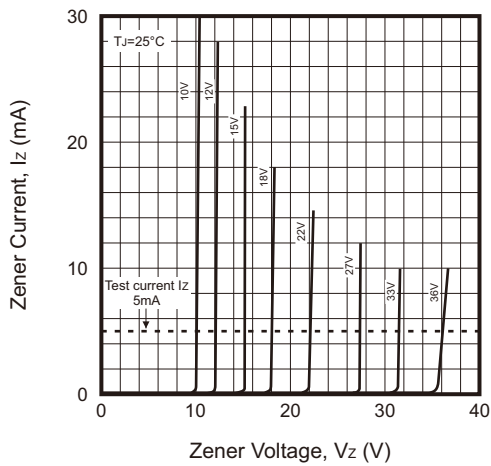
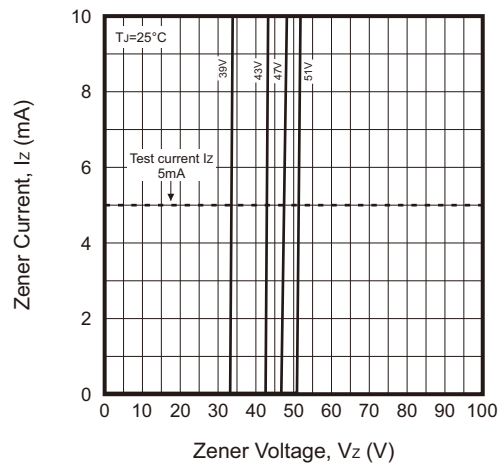
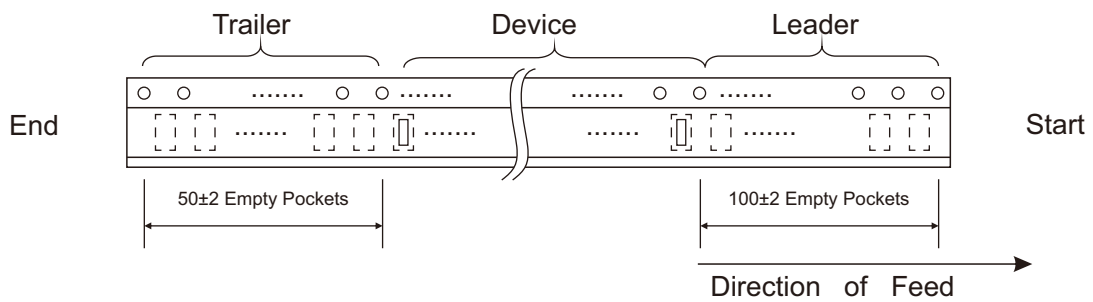
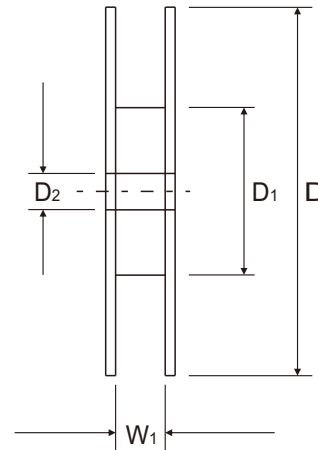
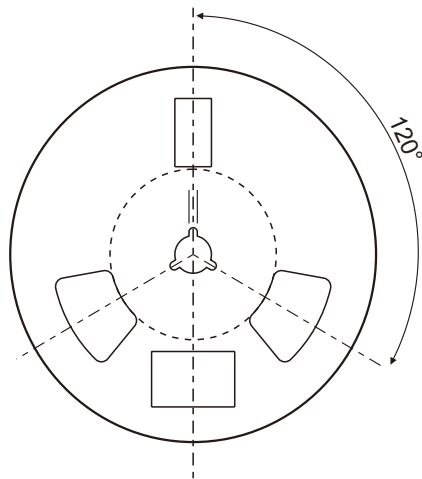
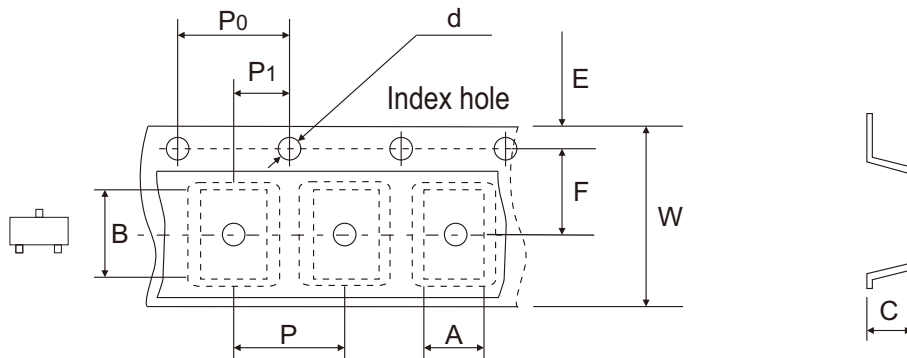


Fig.4 - Typical Zener Breakdown Characteristics



Reel Taping Specification



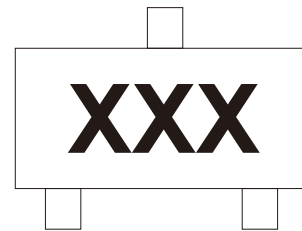
SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.374 ± 0.039

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Marking Code

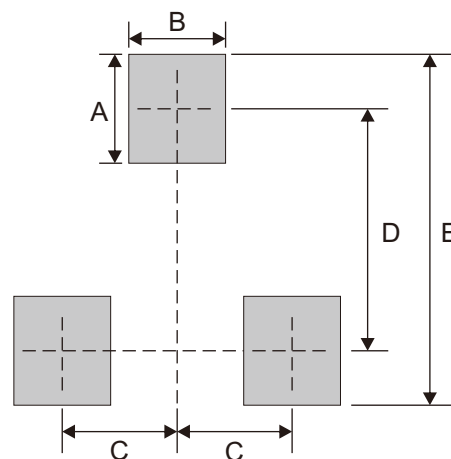
Part Number	Marking Code
AZ23Cxxx-HF Series	See Page 2



xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7