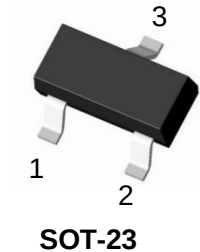


350mW Silicon Planar Zener Diodes

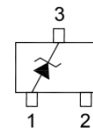
Features

- AEC-Q101 Qualified
- Zener breakdown voltage range - 2.4 V to 75 V
- Package designed for optimal automated board assembly
- Small package size for high density applications
- Halogen and Antimony Free(HAF), RoHS compliant



SOT-23

Equivalent circuit



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

Parameters	Symbol	Value	Unit
Power Dissipation	P_D	350	mW
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient (<i>Note 1</i>)	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$

Note 1: Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise noted, $V_F < 0.9\text{ V}$ at $I_F = 10\text{ mA}$)

Type	Marking Code	Zener Voltage Range ¹⁾				Dynamic Impedance		Reverse Current	
		V_{ZT}			at I_{ZT} (mA)	Z_{ZT}	at I_{ZT} (mA)	I_R	at V_R (V)
		Nom. (V)	Min. (V)	Max. (V)		Max. (Ω)		Max. (μA)	
ABZX84B2V4	CR	2.4	2.35	2.45	5	100	5	50	1
ABZX84B2V7	CX	2.7	2.65	2.75	5	100	5	20	1
ABZX84B3V0	CY	3	2.94	3.06	5	95	5	10	1
ABZX84B3V3	CZ	3.3	3.23	3.37	5	95	5	5	1
ABZX84B3V6	DA	3.6	3.53	3.67	5	90	5	5	1
ABZX84B3V9	DB	3.9	3.82	3.98	5	90	5	3	1
ABZX84B4V3	DC	4.3	4.21	4.39	5	90	5	3	1
ABZX84B4V7	DD	4.7	4.61	4.79	5	80	5	3	2
ABZX84B5V1	DE	5.1	5	5.2	5	60	5	2	2
ABZX84B5V6	DF	5.6	5.49	5.71	5	40	5	1	2
ABZX84B6V2	DH	6.2	6.08	6.32	5	10	5	3	4
ABZX84B6V8	DJ	6.8	6.66	6.94	5	15	5	2	4
ABZX84B7V5	DK	7.5	7.35	7.65	5	15	5	1	5
ABZX84B8V2	DM	8.2	8.04	8.36	5	15	5	0.7	5
ABZX84B9V1	DN	9.1	8.92	9.28	5	15	5	0.5	6
ABZX84B10	DP	10	9.8	10.2	5	20	5	0.2	7
ABZX84B11	DR	11	10.8	11.2	5	20	5	0.1	8
ABZX84B12	DX	12	11.8	12.2	5	25	5	0.1	8
ABZX84B13	DY	13	12.7	13.3	5	30	5	0.1	8
ABZX84B15	DZ	15	14.7	15.3	5	30	5	0.05	10.5
ABZX84B16	EA	16	15.7	16.3	5	40	5	0.05	11.2
ABZX84B18	EB	18	17.6	18.4	5	45	5	0.05	12.6
ABZX84B20	EC	20	19.6	20.4	5	55	5	0.05	14
ABZX84B22	ED	22	21.6	22.4	5	55	5	0.05	15.4
ABZX84B24	EE	24	23.5	24.5	5	70	5	0.05	16.8
ABZX84B27	EF	27	26.5	27.5	2	80	2	0.05	18.9
ABZX84B30	EH	30	29.4	30.6	2	80	2	0.05	21
ABZX84B33	EJ	33	32.3	33.7	2	80	2	0.05	23.1
ABZX84B36	EK	36	35.3	36.7	2	90	2	0.05	25.2
ABZX84B39	EM	39	38.2	39.8	2	130	2	0.05	27.3
ABZX84B43	EN	43	42.1	43.9	2	150	2	0.05	30.1
ABZX84B47	EP	47	46.1	47.9	2	170	2	0.05	32.9
ABZX84B51	ER	51	50	52	2	180	2	0.05	35.7
ABZX84B56	EX	56	54.9	57.1	2	200	2	0.05	39.2
ABZX84B62	EY	62	60.8	63.2	2	215	2	0.05	43.4
ABZX84B68	EZ	68	66.6	69.4	2	240	2	0.05	47.6
ABZX84B75	FA	75	73.5	76.5	2	255	2	0.05	52.5

¹⁾ Tested with pulses $t_p = 20\text{ ms}$.

Typical and Characteristics Curves (T_A = 25°C unless otherwise noted)

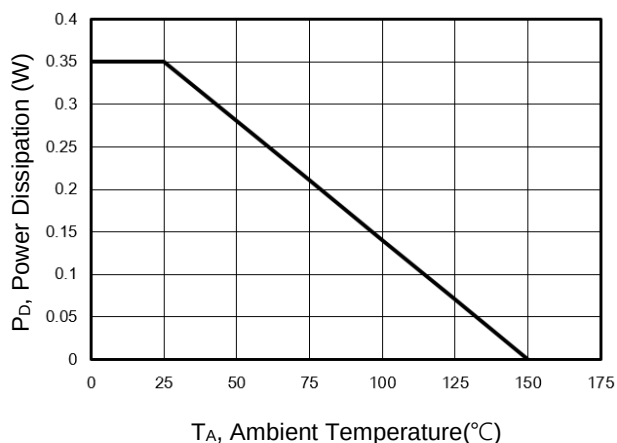


Fig. 1 Power Derating Curve

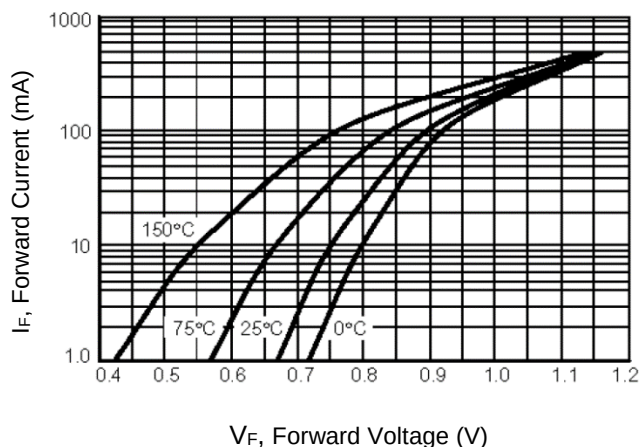


Fig. 2 Forward Characteristics

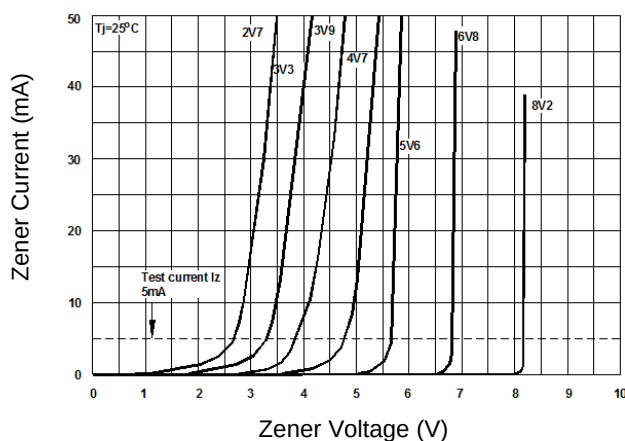


Fig. 3 Zener Characteristics Curve

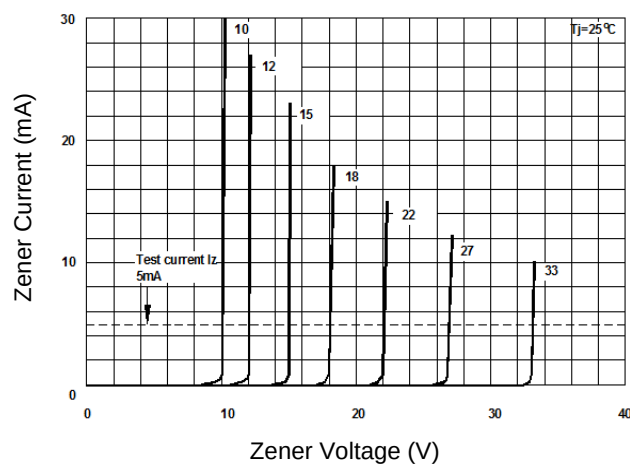
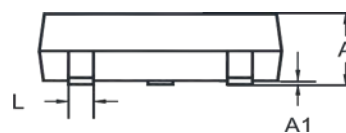
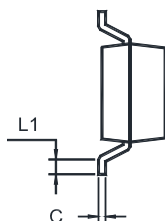
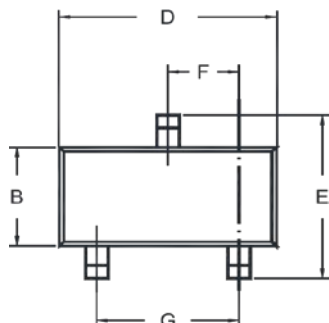


Fig. 4 Zener Characteristics Curve

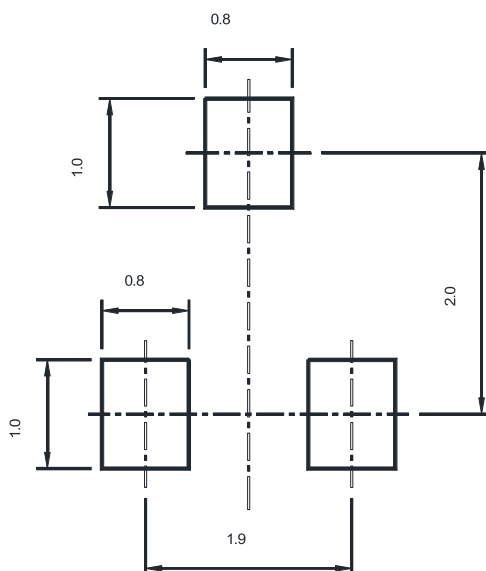
Package Outline Dimensions (Unit: millimeters)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20 0.89	0.100 0.013	1.40 1.20	0.19 0.08	3.04 2.80	2.6 2.2	1.02 0.89	2.04 1.78	0.51 0.37	0.2 MIN

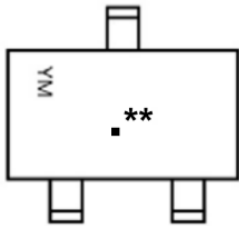
Recommended Soldering Footprint (Unit: millimeters)



Packing information

Package	Tape Width	Pitch		Reel Size		Per Reel Packing Quantity
SOT-23	mm	mm	inch	mm	inch	
	8	4±0.1	0.157±0.004	178	7	3000

Marking information



1. " ** " = Part No. (See Electrical Characteristics of Marking code)
2. " • " = HAF (Halogen and Antimony Free)
3. " Y " = Year"
4. M " = Month

Font type: Arial

Revision History

Version	Date	Description of changes
Rev.A	2025.10.16	Primary

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