

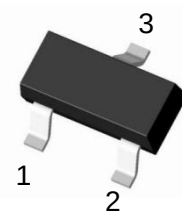
350mW Silicon Planar Zener Diodes

Features

- AEC-Q101 Qualified
- Zener breakdown voltage range - 2.0 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

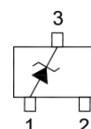


RoHS
COMPLIANT



SOT-23

Equivalent circuit



Maximum Ratings& Thermal Characteristic_(TA=25°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	°C

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient (<i>Note 1</i>)	$R_{\theta JA}$	357	°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)	
ABZX84C2V0	A8	2	1.8	2.15	5	100	5	120	0.5
ABZX84C2V2	B8	2.2	2.08	2.33	5	100	5	120	0.7
ABZX84C2V4	C8	2.4	2.2	2.6	5	100	5	50	1
ABZX84C2V7	D8	2.7	2.5	2.9	5	100	5	20	1
ABZX84C3V0	E8	3	2.8	3.2	5	95	5	10	1
ABZX84C3V3	F8	3.3	3.1	3.5	5	95	5	5	1
ABZX84C3V6	H8	3.6	3.4	3.8	5	90	5	5	1
ABZX84C3V9	J8	3.9	3.7	4.1	5	90	5	3	1
ABZX84C4V3	K8	4.3	4	4.6	5	90	5	3	1
ABZX84C4V7	M8	4.7	4.4	5	5	80	5	3	2
ABZX84C5V1	N8	5.1	4.8	5.4	5	60	5	2	2
ABZX84C5V6	P8	5.6	5.2	6	5	40	5	1	2
ABZX84C6V2	R8	6.2	5.8	6.6	5	10	5	3	4
ABZX84C6V8	X8	6.8	6.4	7.2	5	15	5	2	4
ABZX84C7V5	Y8	7.5	7	7.9	5	15	5	1	5
ABZX84C8V2	Z8	8.2	7.7	8.7	5	15	5	0.7	5
ABZX84C9V1	A9	9.1	8.5	9.6	5	15	5	0.5	6
ABZX84C10	B9	10	9.4	10.6	5	20	5	0.2	7
ABZX84C11	C9	11	10.4	11.6	5	20	5	0.1	8
ABZX84C12	D9	12	11.4	12.7	5	25	5	0.1	8
ABZX84C13	E9	13	12.4	14.1	5	30	5	0.1	8
ABZX84C15	F9	15	13.8	15.6	5	30	5	0.05	10.5
ABZX84C16	H9	16	15.3	17.1	5	40	5	0.05	11.2
ABZX84C18	J9	18	16.8	19.1	5	45	5	0.05	12.6
ABZX84C20	K9	20	18.8	21.2	5	55	5	0.05	14
ABZX84C22	M9	22	20.8	23.3	5	55	5	0.05	15.4
ABZX84C24	N9	24	22.8	25.6	5	70	5	0.05	16.8
ABZX84C27	P9	27	25.1	28.9	2	80	2	0.05	18.9
ABZX84C30	R9	30	28	32	2	80	2	0.05	21
ABZX84C33	X9	33	31	35	2	80	2	0.05	23.1
ABZX84C36	Y9	36	34	38	2	90	2	0.05	25.2
ABZX84C39	Z9	39	37	41	2	130	2	0.05	27.3
ABZX84C43	A0	43	40	46	2	150	2	0.05	30.1
ABZX84C47	B0	47	44	50	2	170	2	0.05	32.9
ABZX84C51	C0	51	48	54	2	180	2	0.05	35.7
ABZX84C56	D0	56	52	60	2	200	2	0.05	39.2
ABZX84C62	E0	62	58	66	2	215	2	0.05	43.4
ABZX84C68	F0	68	64	72	2	240	2	0.05	47.6
ABZX84C75	H0	75	70	79	2	255	2	0.05	52.5

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

Ratings and Characteristics Curves

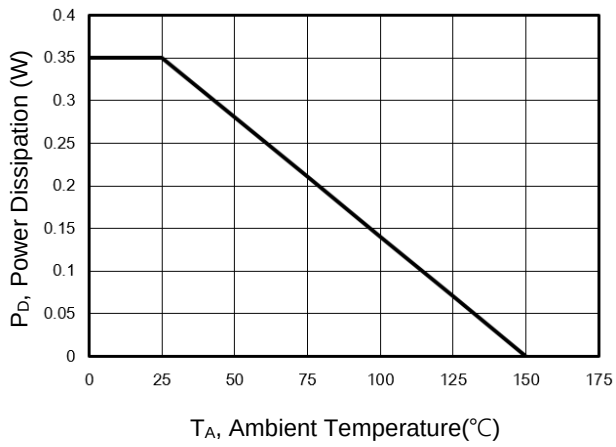


Fig. 1 Power Derating Curve

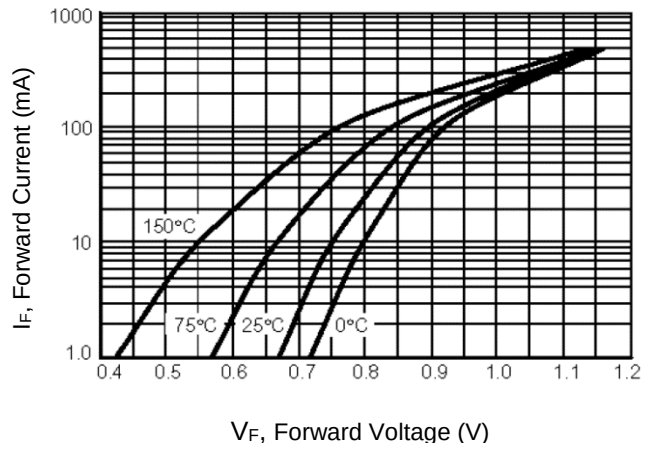


Fig. 2 Forward Characteristics

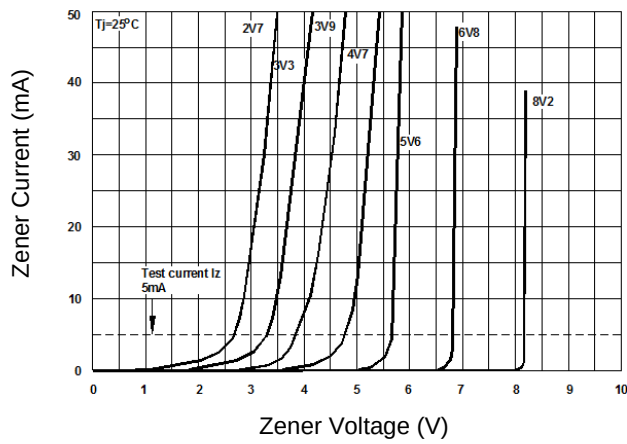


Fig. 3 Zener Characteristics Curve

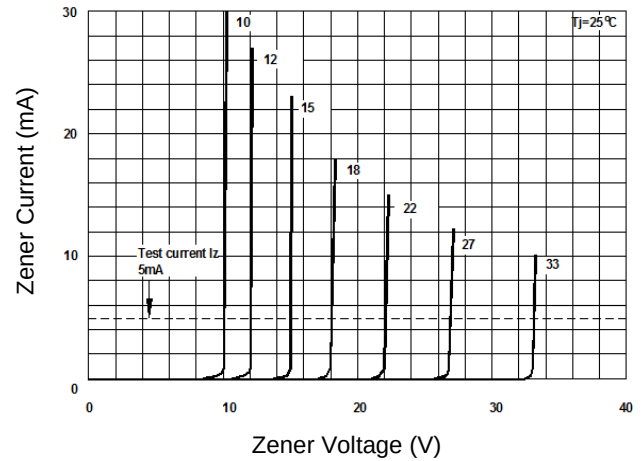
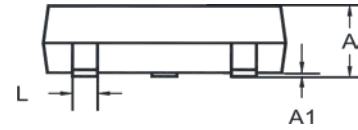
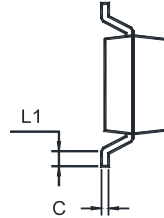
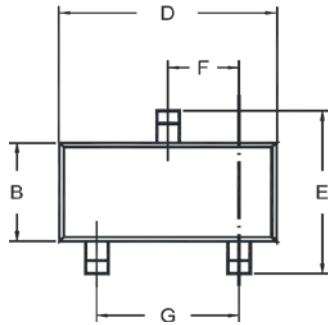


Fig. 4 Zener Characteristics Curve

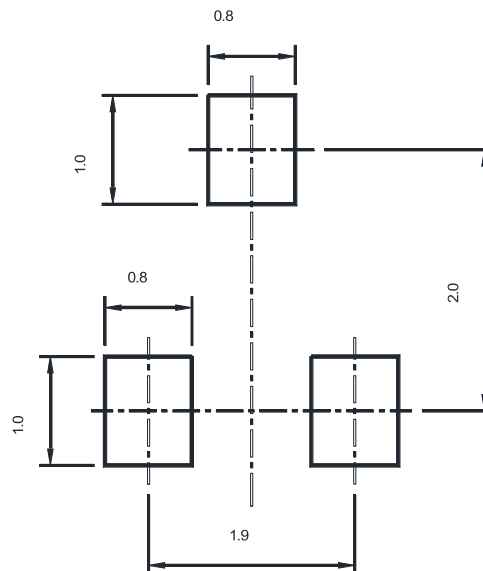
Package Outline Dimensions (Unit: millimeters)

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

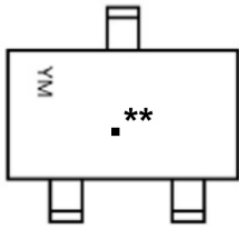
Recommended Soldering Footprint (Unit: millimeters)



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.
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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