

Zener Diodes SOT-323, AEC-Q101

BZX84C-W-A Series

MERITEK

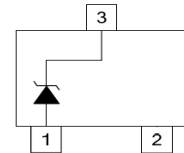
FEATURE

- Zener Voltage Range: 2.4V to 75V
- Zener Voltage Tolerance: $\pm 5\%$
- Power Dissipation: 200mW
- Planar Die Construction in a Small Plastic
- Ideally Suited For Automated Assembly Processes
- Application: Power Management Systems , Voltage Regulation
- AEC-Q101 Qualified



APPLICATION

- Case: SOT-323, Molded Plastic
- Terminals: Solderable Per MIL-STD-750, Method 2026



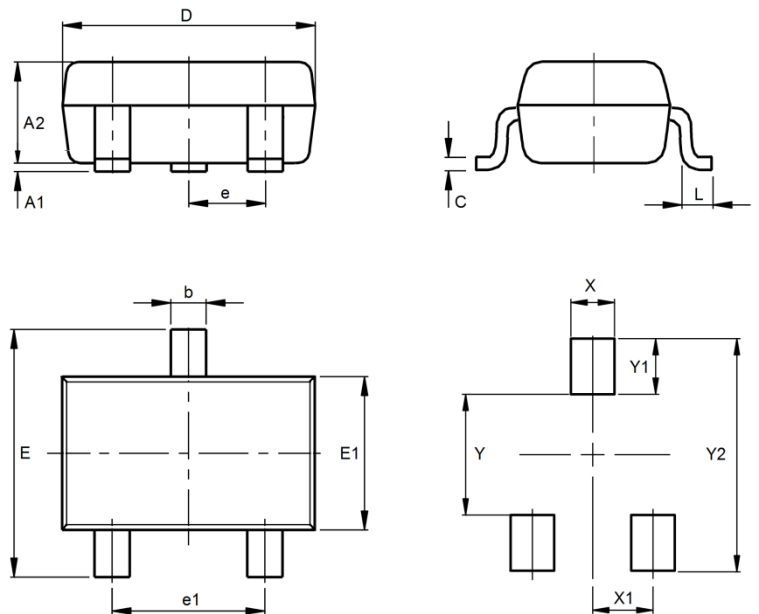
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbols	Value	Unit
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	-55~+150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}\text{C}$

Note: $T_A = 25^{\circ}\text{C}$ unless otherwise noted

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.10	0.10
A2	0.90	1.10
b	0.20	0.40
C	0.05	0.15
D	1.80	2.20
e	0.65	0.65
e1	1.20	1.40
E	--	--
E1	1.15	1.35
L	0.10	0.10
X	0.66	0.66
X1	0.65	0.65
Y	0.99	0.99
Y1	0.86	0.86
Y2	2.71	2.71



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ELECTRICAL CHARACTERISTICS

Part Number	Nominal Zener Voltage V_Z at I_{ZT}			Max Zener Impedance Z_{ZT} at I_{ZT} , Z_{ZK} at $I_{ZK}=1mA$			Reverse Leakage Current I_R at V_R	
	Nom	Min	Max	Z_{ZT}	I_{ZT}	Z_{ZK}	I_R max	V_R
	(V)	(V)	(V)	(Ω)	(mA)	(Ω)	(μA)	(V)
BZX84C2V4W-A	2.4	2.28	2.52	100	5.0	600	50	1.0
BZX84C2V7W-A	2.7	2.57	2.84	100	5.0	600	20	1.0
BZX84C3V0W-A	3.0	2.85	3.15	95	5.0	600	10	1.0
BZX84C3V3W-A	3.3	3.14	3.47	95	5.0	600	5.0	1.0
BZX84C3V6W-A	3.6	3.42	3.78	90	5.0	600	5.0	1.0
BZX84C3V9W-A	3.9	3.71	4.10	90	5.0	600	3.0	1.0
BZX84C4V3W-A	4.3	4.09	4.52	90	5.0	600	3.0	1.0
BZX84C4V7W-A	4.7	4.47	4.94	80	5.0	500	3.0	2.0
BZX84C5V1W-A	5.1	4.85	5.36	60	5.0	480	2.0	2.0
BZX84C5V6W-A	5.6	5.32	5.88	40	5.0	400	1.0	2.0
BZX84C6V2W-A	6.2	5.89	6.51	10	5.0	150	3.0	4.0
BZX84C6V8W-A	6.8	6.46	7.14	15	5.0	80	2.0	4.0
BZX84C7V5W-A	7.5	7.13	7.88	15	5.0	80	1.0	5.0
BZX84C8V2W-A	8.2	7.79	8.61	15	5.0	80	0.7	5.0
BZX84C8V7W-A	8.7	8.27	9.14	15	5.0	100	0.7	5.0
BZX84C9V1W-A	9.1	8.65	9.56	15	5.0	100	0.5	6.0
BZX84C10W-A	10	9.50	10.50	20	5.0	150	0.2	7.0
BZX84C11W-A	11	10.45	11.55	20	5.0	150	0.1	8.0
BZX84C12W-A	12	11.40	12.60	25	5.0	150	0.1	8.0
BZX84C13W-A	13	12.35	13.65	30	5.0	170	0.1	8.0
BZX84C14W-A	14	13.30	14.70	30	5.0	170	0.1	10.0
BZX84C15W-A	15	14.25	15.75	30	5.0	200	0.1	10.5
BZX84C16W-A	16	15.20	16.80	40	5.0	200	0.1	11.2
BZX84C17W-A	17	16.15	17.85	40	5.0	200	0.1	12.2
BZX84C18W-A	18	17.10	18.90	45	5.0	225	0.1	12.6
BZX84C20W-A	20	19.00	21.00	55	5.0	225	0.1	14.0
BZX84C22W-A	22	20.90	23.10	55	5.0	250	0.1	15.4
BZX84C24W-A	24	22.80	25.20	70	5.0	250	0.1	16.8
BZX84C27W-A	27	25.65	28.35	80	5.0	300	0.1	18.9
BZX84C28W-A	28	26.60	29.40	80	5.0	300	0.1	20.5
BZX84C30W-A	30	28.50	31.50	80	5.0	300	0.1	21.0
BZX84C33W-A	33	31.35	34.65	80	5.0	325	0.1	23.1
BZX84C36W-A	36	34.20	37.80	90	5.0	350	0.1	25.2
BZX84C39W-A	39	37.05	40.95	130	5.0	350	0.1	27.3
BZX84C43W-A	43	40.85	45.15	150	5.0	375	0.1	30.1
BZX84C47W-A	47	44.65	49.35	170	5.0	375	0.1	32.9
BZX84C51W-A	51	48.45	53.55	100	5.0	400	0.1	38.0
BZX84C56W-A	56	53.20	58.80	135	2.5	1000	0.1	42.0

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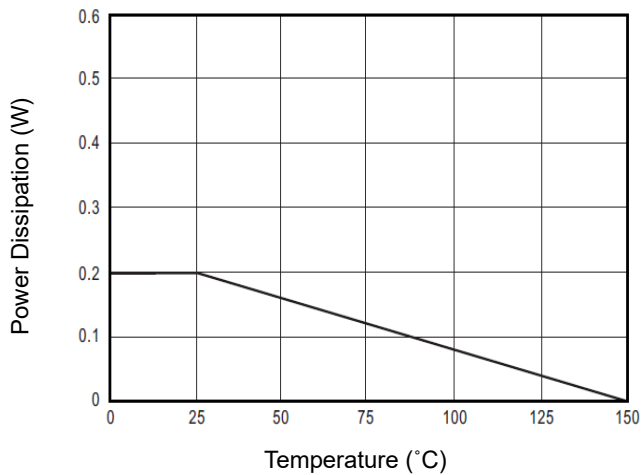
Part Number	Nominal Zener Voltage V_Z at I_{ZT}			Max Zener Impedance Z_{ZT} at I_{ZT} , Z_{ZK} at $I_{ZK}=1\text{mA}$			Reverse Leakage Current I_R at V_R	
	Nom	Min	Max	Z_{ZT}	I_{ZT}	Z_{ZK}	I_R max	V_R
	(V)	(V)	(V)	(Ω)	(mA)	(Ω)	(μA)	(V)
BZX84C62W-A	62	58.90	65.10	150	2.5	1000	0.1	46.0
BZX84C68W-A	68	64.60	71.40	200	2.5	1000	0.1	51.0
BZX84C75W-A	75	71.25	78.75	250	2.5	1000	0.1	56.0

Note:

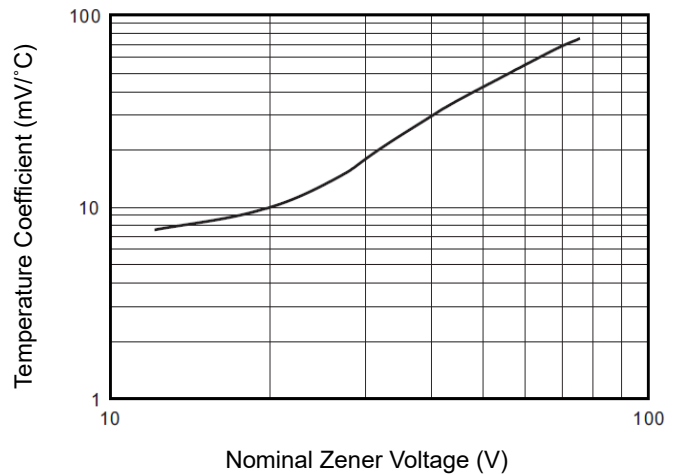
- $T_A=25^\circ\text{C}$ unless otherwise noted
- Mounted on 5.0mm^2 (0.013mm thick) land areas.

CHARACTERISTIC CURVES

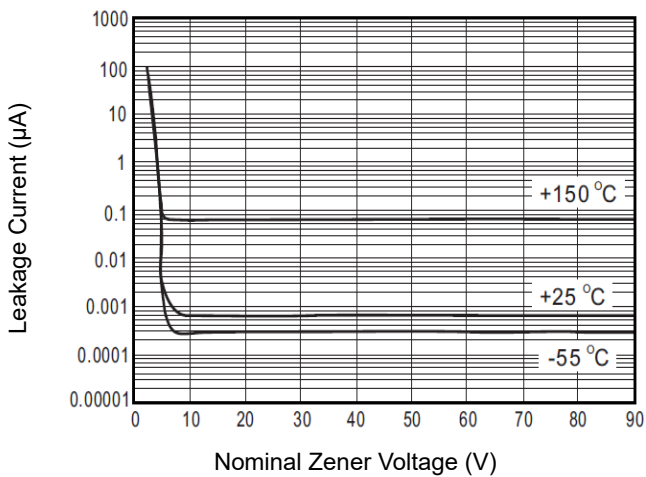
Steady-State Power Derating



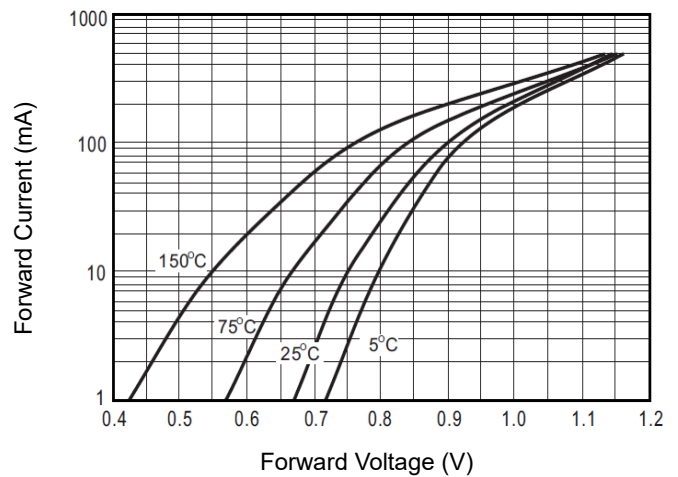
Temperature Coefficient



Typical Leakage Current



Typical Forward Voltage



*Specifications subject to change without notice.