

Zener Diodes Mini-MELF, LL34

BZV55B Series

MERITEK

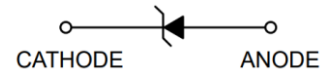
FEATURE

- Zener Voltage Range: 2.4V to 75V
- Zener Voltage Tolerance: $\pm 2\%$
- Power Dissipation: 500mW
- Planar Die Construction
- Application: Power Management Systems, Voltage Regulation



MECHANICAL DATA

- Case: Mini-MELF, LL34, Hermetical Sealed Glass Molded
- Polarity: Cathode Indicated by Band



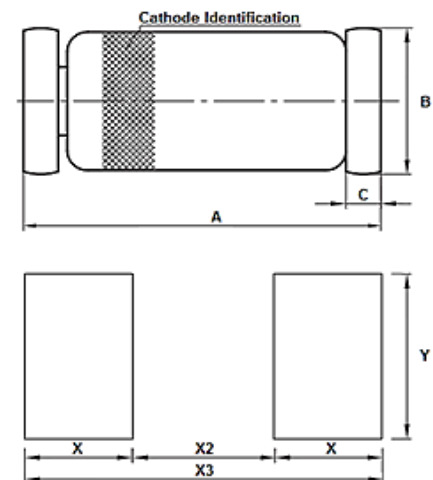
MAXIMUM RATINGS

Parameter	Symbols	Value	Unit
Power Dissipation	P_D	500	mW
Forward Voltage at $I_F=10\text{mA}$	V_F	0.9	V
Resistance Junction to Ambient Air	$R_{\theta JA}$	300	K/W
Storage Temperature Range	T_{STG}	-65~+200	$^{\circ}\text{C}$

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

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	3.3	3.7
B	1.4	1.6
C	--	0.47
X	1.5	1.5
X2	1.7	1.7
X3	4.1	4.1
Y	1.8	1.8



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ELECTRICAL CHARACTERISTICS

Part Number	Nominal Zener Voltage			Max Zener Impedance			Max Reverse Leakage Current ($T_a=125^{\circ}\text{C}$)	
	V_Z at I_{ZT}		I_{ZT}	Z_{ZT} at I_{ZT}	Z_{ZK} at I_{ZK}	I_{ZK}	I_R at V_R	
	Min (V)	Max (V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
BZV55B2V4	2.35	2.45	5.0	100	600	1.0	50	1.0
BZV55B2V7	2.65	2.75	5.0	100	600	1.0	20	1.0
BZV55B3V0	2.94	3.06	5.0	95	600	1.0	10	1.0
BZV55B3V3	3.23	3.37	5.0	95	600	1.0	5.0	1.0
BZV55B3V6	3.53	3.67	5.0	90	600	1.0	5.0	1.0
BZV55B3V9	3.82	3.98	5.0	90	600	1.0	3.0	1.0
BZV55B4V3	4.21	4.39	5.0	90	600	1.0	3.0	1.0
BZV55B4V7	4.61	4.79	5.0	80	500	1.0	3.0	2.0
BZV55B5V1	5.00	5.20	5.0	60	480	1.0	2.0	2.0
BZV55B5V6	5.49	5.71	5.0	40	400	1.0	1.0	2.0
BZV55B6V2	6.08	6.32	5.0	10	150	1.0	3.0	4.0
BZV55B6V8	6.66	6.94	5.0	15	80	1.0	2.0	4.0
BZV55B7V5	7.35	7.65	5.0	15	80	1.0	1.0	5.0
BZV55B8V2	8.04	8.36	5.0	15	80	1.0	0.7	5.0
BZV55B9V1	8.92	9.28	5.0	15	100	1.0	0.5	6.0
BZV55B10	9.80	10.2	5.0	20	150	1.0	0.2	7.0
BZV55B11	10.8	11.2	5.0	20	150	1.0	0.1	8.0
BZV55B12	11.8	12.2	5.0	25	150	1.0	0.1	8.0
BZV55B13	12.7	13.3	5.0	30	170	1.0	0.1	8.0
BZV55B15	14.7	15.3	5.0	30	200	1.0	0.05	10
BZV55B16	15.7	16.3	5.0	40	200	1.0	0.05	11
BZV55B18	17.6	18.4	5.0	45	200	1.0	0.05	13
BZV55B20	19.6	20.4	5.0	55	225	1.0	0.05	14
BZV55B22	21.6	22.4	5.0	55	225	1.0	0.05	15
BZV55B24	23.5	24.5	5.0	70	250	1.0	0.05	17
BZV55B27	26.5	27.5	2.0	80	250	1.0	0.05	19
BZV55B30	29.4	30.6	2.0	80	300	0.5	0.05	21
BZV55B33	32.3	33.7	2.0	80	300	0.5	0.05	23
BZV55B36	35.3	36.7	2.0	90	325	0.5	0.05	25
BZV55B39	38.2	39.8	2.0	130	350	0.5	0.05	27
BZV55B43	42.1	43.9	2.0	150	350	0.5	0.05	30
BZV55B47	46.1	47.9	2.0	170	375	0.5	0.05	33
BZV55B51	50.0	52.0	2.0	180	375	0.5	0.05	36
BZV55B56	54.9	57.1	2.0	200	400	0.5	0.05	39
BZV55B62	60.8	63.2	2.0	215	450	0.5	0.05	43
BZV55B68	66.6	69.4	2.0	240	475	0.5	0.05	48
BZV55B75	73.5	76.5	2.0	255	500	0.5	0.05	53

Note:

1. $T_A = 25^{\circ}\text{C}$ unless otherwise noted
2. Valid provided that electrodes are kept at ambient temperature
3. Tested with pulse $t_p=20\text{ms}$.

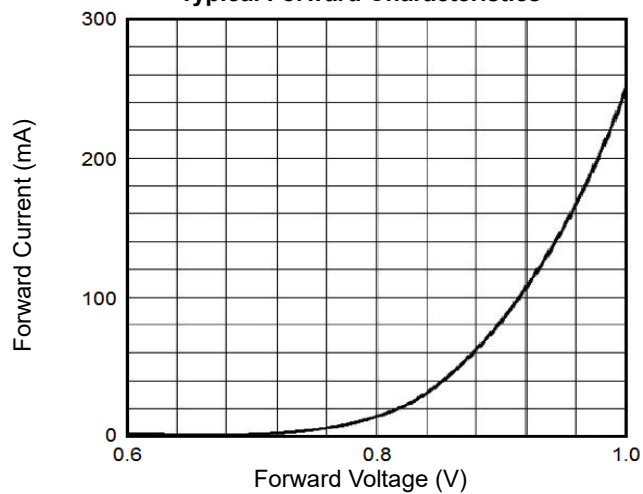
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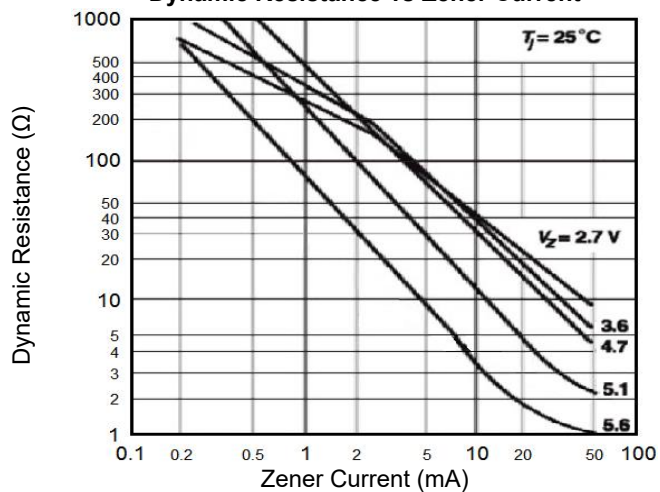
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CHARACTERISTIC CURVES

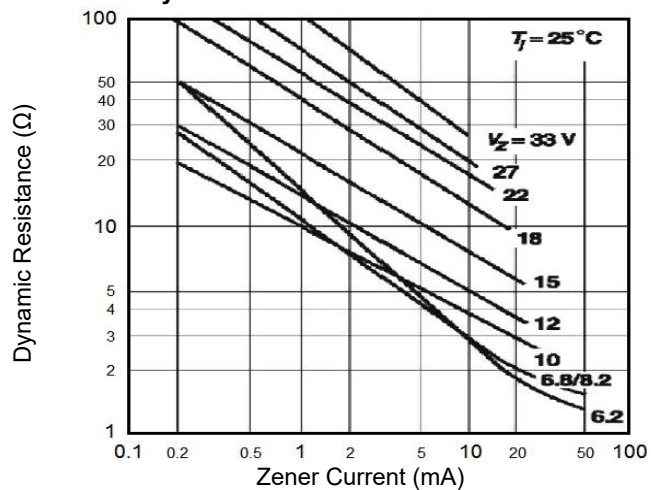
Typical Forward Characteristics



Dynamic Resistance vs Zener Current



Dynamic Resistance vs Zener Current



*Specifications subject to change without notice.