

BZV55C2V4-BZV55C75

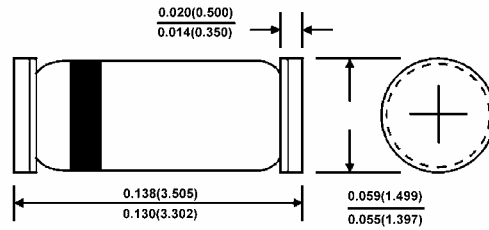
0.5 Watts Hermetically Sealed Glass Zener Voltage Regulators



MINI-MELF

Features

- ✧ Zener voltage range 2.0 to 75 volts
- ✧ LL-34(Mini-MELF) package
- ✧ Surface device type mounting
- ✧ Hermetically sealed glass
- ✧ Compression Bonded Construction
- ✧ All external surfaces are corrosion resistant and terminals are readily solderable
- ✧ RoHS compliant
- ✧ Matte Tin(Sn) lead finish
- ✧ Blue color band indicates negative polarity



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units
Power Dissipation	P _{tot}	500	mW
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 200	°C

Notes: These ratings are limiting values above which the serviceability of the diode may be impaired

ELECTRICAL CHARACTERISTICS (TA=25oC unless otherwise noted)

Type Number	Vz @ IZT (Volts)			IZT mA	ZzT @ IZT Ohms Max	Izk mA	Zzk @ Izk Ohms	IR @ VR uA Max	VR V
	Vz Min (V)	Vz Nom	Vz Max (V)						
BZV55C2V4	2.28	2.4	2.56	5	85	1.0	600	50	1.0
BZV55C2V7	2.51	2.7	2.89	5	85	1.0	600	10	1.0
BZV55C3V0	2.8	3.0	3.2	5	85	1.0	600	4	1.0
BZV55C3V3	3.1	3.3	3.5	5	85	1.0	600	2	1.0
BZV55C3V6	3.4	3.6	3.8	5	85	1.0	600	2	1.0
BZV55C3V9	3.7	3.9	4.1	5	85	1.0	600	2	1.0
BZV55C4V3	4.0	4.30	4.6	5	75	1.0	600	1	1.0
BZV55C4V7	4.4	4.7	5.0	5	60	1.0	600	0.5	1.0
BZV55C5V1	4.8	5.1	5.4	5	35	1.0	550	0.1	1.0
BZV55C5V6	5.2	5.6	6.0	5	25	1.0	450	0.1	1.0
BZV55C6V2	5.8	6.2	6.6	5	10	1.0	200	0.1	2.0
BZV55C6V8	6.4	6.8	7.2	5	8	1.0	150	0.1	3.0
BZV55C7V5	7.0	7.5	7.9	5	7	1.0	50	0.1	5.0
BZV55C8V2	7.7	8.2	8.7	5	7	1.0	50	0.1	6.2
BZV55C9V1	8.5	9.1	9.6	5	10	1.0	50	0.1	6.8
BZV55C10	9.4	10	10.6	5	15	1.0	70	0.1	7.5
BZV55C11	10.4	11	11.6	5	20	1.0	70	0.1	8.2
BZV55C12	11.4	12	12.7	5	20	1.0	90	0.1	9.1
BZV55C13	12.4	13	14.1	5	26	1.0	110	0.1	10
BZV55C15	13.8	15	15.6	5	30	1.0	110	0.1	11
BZV55C16	15.3	16	17.1	5	40	1.0	170	0.1	12
BZV55C18	16.8	18	19.1	5	50	1.0	170	0.1	13
BZV55C20	18.8	20	21.1	5	55	1.0	220	0.1	15
BZV55C22	20.8	22	23.3	5	55	1.0	220	0.1	16
BZV55C24	22.8	24	25.6	5	80	1.0	220	0.1	18
BZV55C27	25.1	27	28.9	2	80	1.0	220	0.1	20
BZV55C30	28	30	32	2	80	1.0	220	0.1	22
BZV55C33	31	33	35	2	80	1.0	220	0.1	24
BZV55C36	34	36	38	2	80	1.0	220	0.1	27
BZV55C39	37	39	41	2	90	0.5	500	0.1	28
BZV55C43	40	43	46	2	90	0.5	600	0.1	32
BZV55C47	44	47	50	2	110	0.5	700	0.1	35
BZV55C51	48	51	54	2	125	0.5	700	0.1	38
BZV55C56	52	56	60	2	135	0.5	1000	0.1	42
BZV55C62	58	62	66	2.5	150	0.5	1000	0.1	47
BZV55C68	64	68	72	2.5	160	0.5	1000	0.1	51
BZV55C75	70	75	80	2.5	170	0.5	1000	0.1	56

Notes: 1. VF Forward Voltage = 1.0v Maximum @ IF=100mA for all types.

2. The type numbers listed have zener voltage min/max limits as shown.

3. Zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (IZT or IZK) is superimposed to IZT or IZK

RATINGS AND CHARACTERISTIC CURVES (BZV55C SERIES)

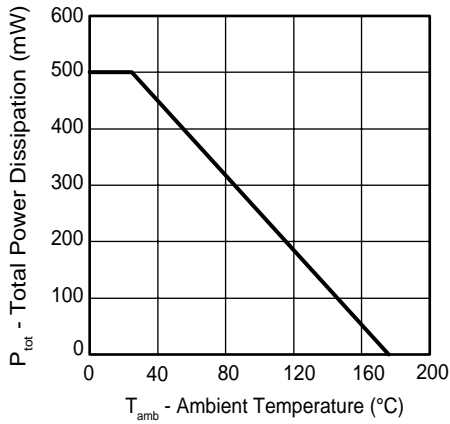


Figure 1. Total Power Dissipation vs. Ambient Temperature

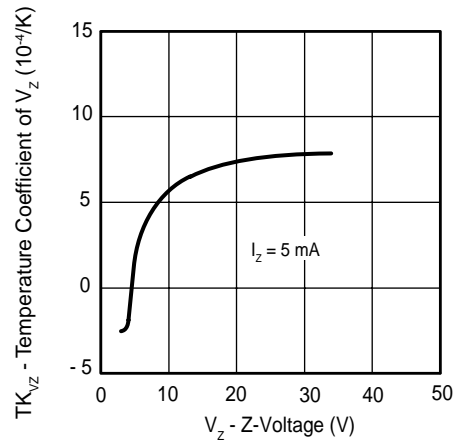


Figure 4. Temperature Coefficient of Vz vs. Z-Voltage

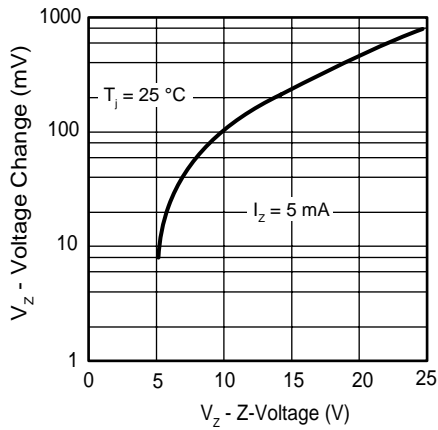


Figure 2. Typical Change of Working Voltage under Operating Conditions at $T_{amb}=25^{\circ}C$

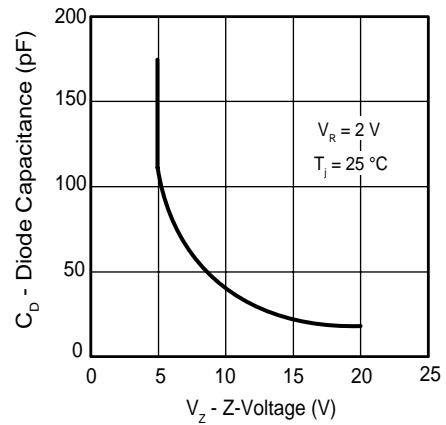


Figure 5. Diode Capacitance vs. Z-Voltage

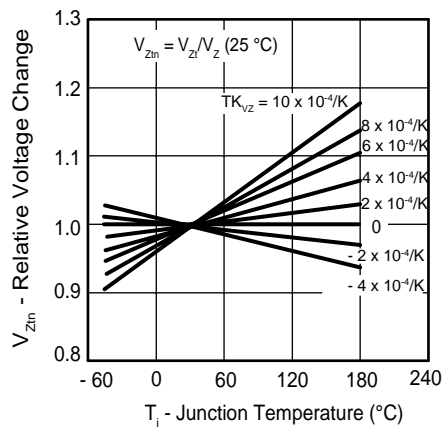


Figure 3. Typical Change of Working Voltage vs. Junction Temperature

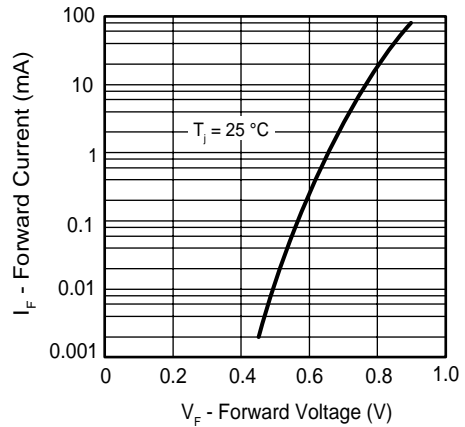


Figure 6. Forward Current vs. Forward Voltage

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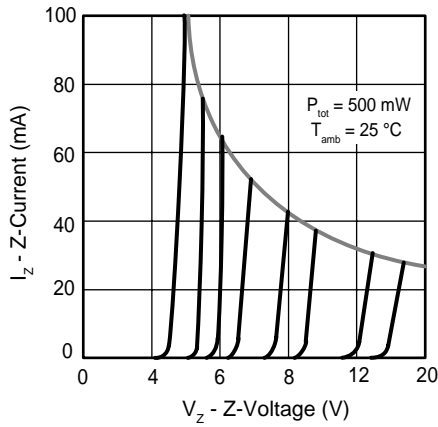


Figure 7. Z-Current vs. Z-Voltage

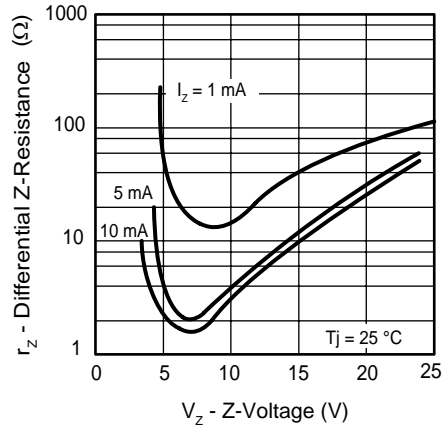


Figure 9. Differential Z-Resistance vs. Z-Voltage

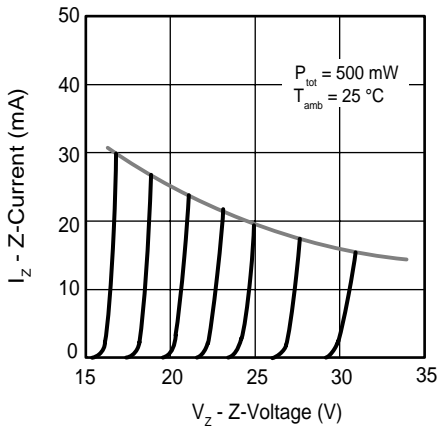


Figure 8. Z-Current vs. Z-Voltage

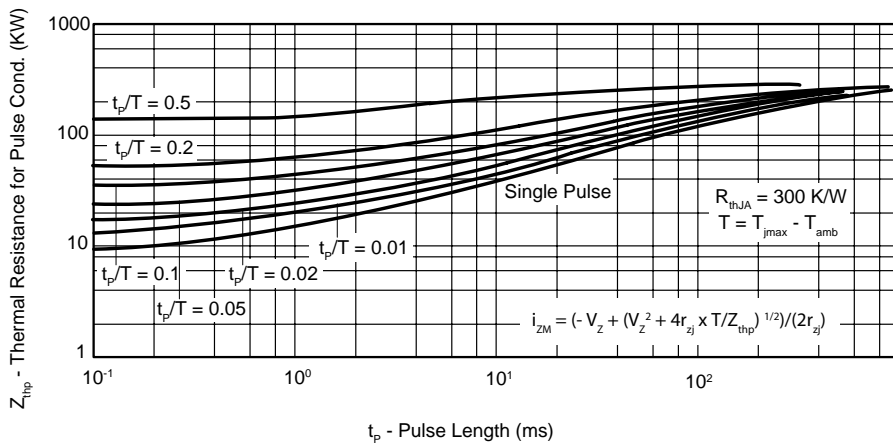


Figure 10. Thermal Response