PRODUCT DATA SHEET

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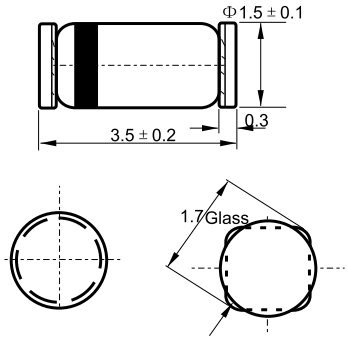
Datasheet Resources Samples

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

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

MINI-MELF



Dimension in millimeters

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units
Power Dissipation	Ptot	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

RATINGS AND CHARACTERISTIC CURVES (BZV55 SERIES)

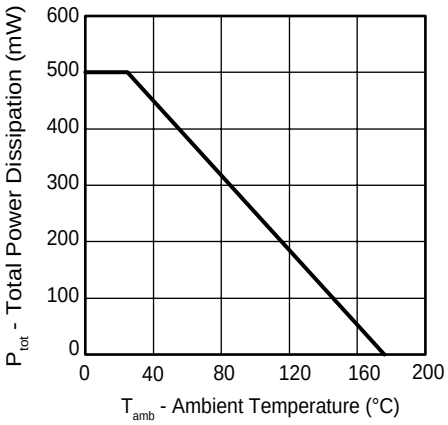


Figure 1. Total Power Dissipation vs. Ambient Temperature

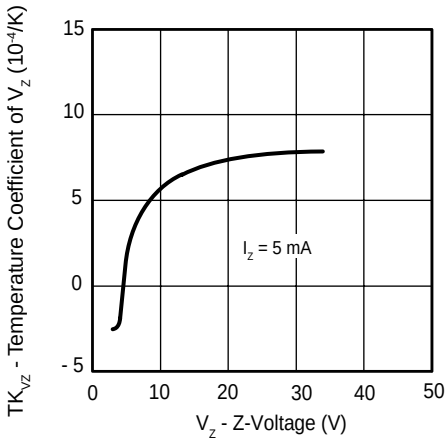


Figure 4. Temperature Coefficient of Vz vs. Z-Voltage

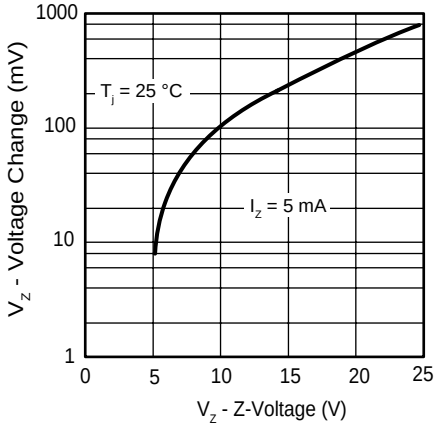


Figure 2. Typical Change of Working Voltage under Operating Conditions at T_{amb}=25°C

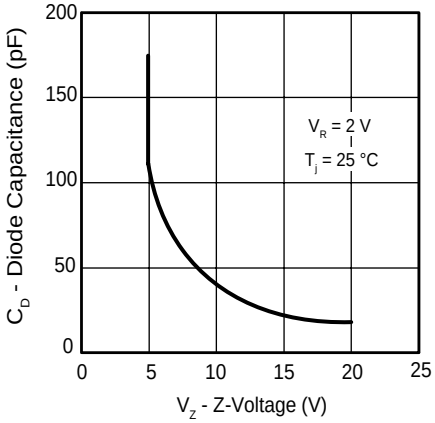


Figure 5. Diode Capacitance vs. Z-Voltage

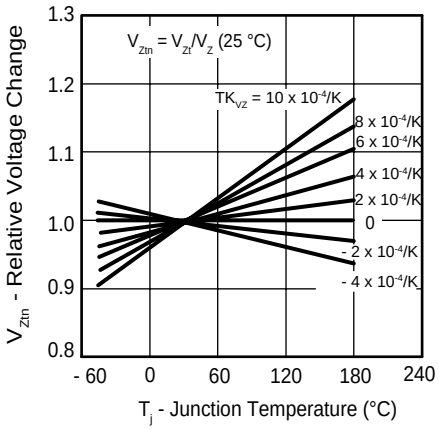


Figure 3. Typical Change of Working Voltage vs. Junction Temperature

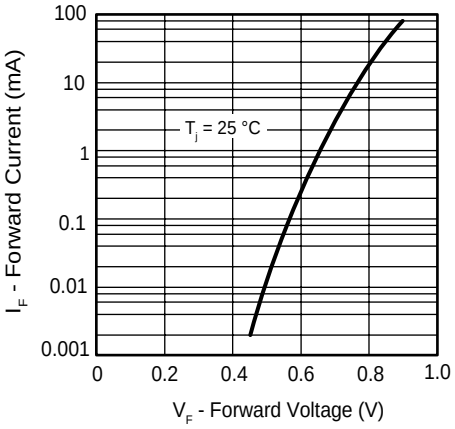


Figure 6. Forward Current vs. Forward Voltage

RATINGS AND CHARACTERISTIC CURVES (BZV55 SERIES)

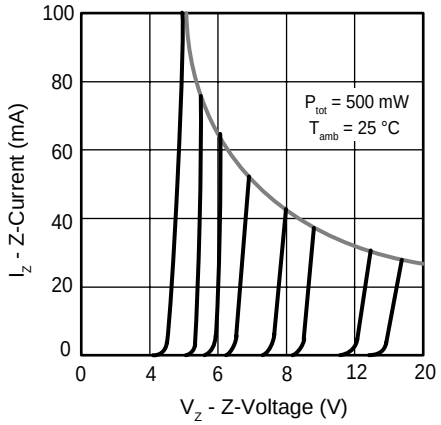


Figure 7. Z-Current vs. Z-Voltage

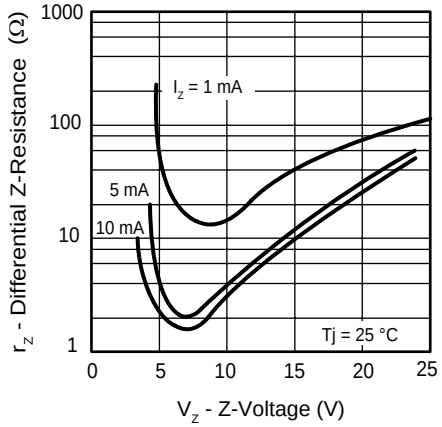


Figure 9. Differential Z-Resistance vs. Z-Voltage

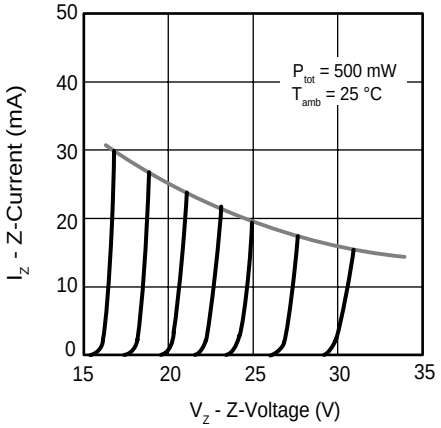


Figure 8. Z-Current vs. Z-Voltage

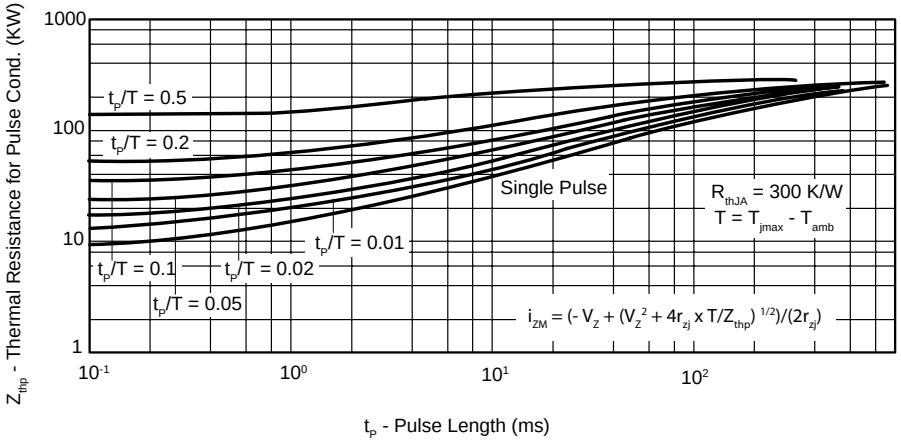


Figure 10. Thermal Response

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Type Number	V_Z @ I_{ZT} (Volts)		I_{ZT}	Z_{ZT} @ I_{ZT}	I_{ZK}	Z_{ZK} @ I_{ZK}	I_R @ V_R	V_R
	V_Z Min (V)	V_Z Max (V)	mA	Ohms Max	mA	Ohms	uA Max	V
BZV55-C2V0	1.88	2.11	5	100	1.0	600	50	1.0
BZV55-C2V2	2.08	2.33	5	100	1.0	600	50	1.0
BZV55-C2V4	2.28	2.56	5	85	1.0	600	50	1.0
BZV55-C2V7	2.51	2.89	5	85	1.0	600	10	1.0
BZV55-C3V0	2.8	3.2	5	85	1.0	600	4	1.0
BZV55-C3V3	3.1	3.5	5	85	1.0	600	2	1.0
BZV55-C3V6	3.4	3.8	5	85	1.0	600	2	1.0
BZV55-C3V9	3.7	4.1	5	85	1.0	600	2	1.0
BZV55-C4V3	4.0	4.6	5	75	1.0	600	1	1.0
BZV55-C4V7	4.4	5.0	5	60	1.0	600	0.5	1.0
BZV55-C5V1	4.8	5.4	5	35	1.0	550	0.1	1.0
BZV55-C5V6	5.2	6.0	5	25	1.0	450	0.1	1.0
BZV55-C6V2	5.8	6.6	5	10	1.0	200	0.1	2.0
BZV55-C6V8	6.4	7.2	5	8	1.0	150	0.1	3.0
BZV55-C7V5	7.0	7.9	5	7	1.0	50	0.1	5.0
BZV55-C8V2	7.7	8.7	5	7	1.0	50	0.1	6.2
BZV55-C9V1	8.5	9.6	5	10	1.0	50	0.1	6.8
BZV55-C10	9.4	10.6	5	15	1.0	70	0.1	7.5
BZV55-C11	10.4	11.6	5	20	1.0	70	0.1	8.2
BZV55-C12	11.4	12.7	5	20	1.0	90	0.1	9.1
BZV55-C13	12.4	14.1	5	26	1.0	110	0.1	10
BZV55-C15	13.8	15.6	5	30	1.0	110	0.1	11
BZV55-C16	15.3	17.1	5	40	1.0	170	0.1	12
BZV55-C18	16.8	19.1	5	50	1.0	170	0.1	13
BZV55-C20	18.8	21.1	5	55	1.0	220	0.1	15
BZV55-C22	20.8	23.3	5	55	1.0	220	0.1	16
BZV55-C24	22.8	25.6	5	80	1.0	220	0.1	18
BZV55-C27	25.1	28.9	2	80	1.0	220	0.1	20
BZV55-C30	28	32	2	80	1.0	220	0.1	22
BZV55-C33	31	35	2	80	1.0	220	0.1	24
BZV55-C36	34	38	2	80	1.0	220	0.1	27
BZV55-C39	37	41	2	90	0.5	500	0.1	28
BZV55-C43	40	46	2	90	0.5	600	0.1	32
BZV55-C47	44	50	2	110	0.5	700	0.1	35
BZV55-C51	48	54	2	125	0.5	700	0.1	38
BZV55-C56	52	60	2	135	0.5	1000	0.1	42
BZV55-C62	58	66	2.5	150	0.5	1000	0.1	47
BZV55-C68	64	72	2.5	160	0.5	1000	0.1	51
BZV55-C75	70	80	2.5	170	0.5	1000	0.1	56
VF Forward Voltage = 1.0v Maximum @ IF=100mA for all types.								

Notes:
1. The type numbers listed have zener voltage min/max limits as shown.
2. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rams value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

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