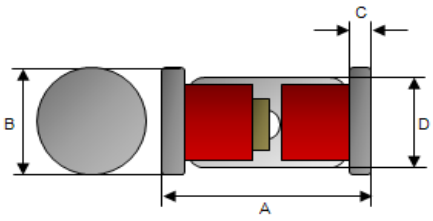
TAIWAN SEMICONDUCTOR

BZV55C2V4-BZV55C75
500mW,5% Tolerance Zener Diode

Small Signal Diode



Mini-MELF (LL34)
HERMETICALLY SEALED GLASS



Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.25	0.40	0.010	0.016
D	1.25	1.40	0.049	0.055

Features

- ✧Wide zener voltage range selection:2.4V to 75V
- ✧Vz Tolerance Selection of ±5%
- ✧Designed for through-Hole Device Type Mounting
- ✧Hermetically Sealed Glass
- ✧Pb free version and RoHS compliant
- ✧High reliability glass passivation insuring parameter stability and protection against junction contamination

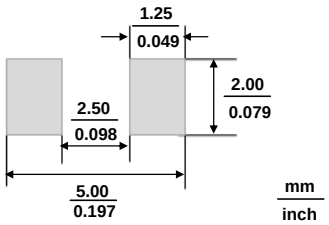
Mechanical Data

- ✧Case : Mini-MELF Package (JEDEC DO-213AC)
- ✧High temperature soldering guaranteed : 270°C/10s
- ✧Polarity : Indicated by cathode band
- ✧Weight : approx. 31 mg

Ordering Information

Part No.	Package code	Package	Packing
BZV55C2V4-75	L0	LL34	10K / 13" Reel
BZV55C2V4-75	L1	LL34	2.5K / 7" Reel

Suggested PAD Layout



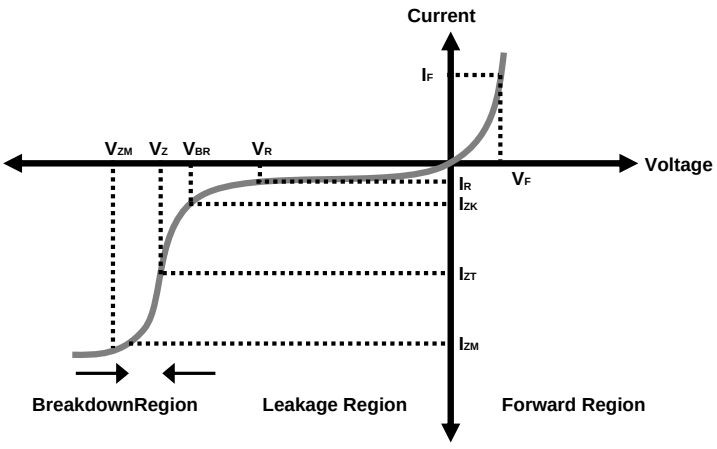
Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P_D	500	mW
Maximum Forward Voltage @I_F=100mA	V_F	1	V
Thermal Resistance (Junction to Ambient) (Note 1)	RθJA	300	°C/W
Storage Temperature Range	T_J,T_{STG}	-65 to + 175	°C

Zener I vs.V Characteristics



V_{BR} : Voltage at I_{ZK}
I_{ZK} : Test current for voltage V_{BR}
Z_{ZK} : Dynamic impedance at I_{ZK}
I_{ZT} : Test current for voltage V_Z
V_Z : Voltage at current I_{ZT}
Z_{ZT} : Dynamic impedance at I_{ZT}
I_{ZM} : Maximum steady state current
V_{ZM} : Voltage at I_{ZM}

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TAIWAN SEMICONDUCTOR

BZV55C2V4-BZV55C75
500mW,5% Tolerance Zener Diode

Small Signal Diode

Electrical Characteristics

Ta = 25°C unless otherwise noted

V_F Forward Voltage = 1.0V Maximum @ I_F = 100 mA for all part numbers

Part Number	V_Z @ I_{ZT} (Volt)			I_{ZT}(mA)	Z_{ZT} @ I_{ZT}(Ω) Max	I_{ZK}(mA)	Z_{ZK} @ I_{ZK}(Ω) Max	I_R @ V_R(μA) Max	V_R(V)
	Min	Nom	Max						
BZV55C2V4	2.28	2.4	2.52	5	85	1.0	600	50	1.0
BZV55C2V7	2.57	2.7	2.84	5	85	1.0	600	10	1.0
BZV55C3V0	2.85	3.0	3.15	5	85	1.0	600	4	1.0
BZV55C3V3	3.14	3.3	3.47	5	85	1.0	600	2	1.0
BZV55C3V6	3.42	3.6	3.78	5	85	1.0	600	2	1.0
BZV55C3V9	3.71	3.9	4.10	5	85	1.0	600	2	1.0
BZV55C4V3	4.09	4.3	4.52	5	75	1.0	600	1	1.0
BZV55C4V7	4.47	4.7	4.94	5	60	1.0	600	0.5	1.0
BZV55C5V1	4.85	5.1	5.36	5	35	1.0	550	0.1	1.0
BZV55C5V6	5.32	5.6	5.88	5	25	1.0	450	0.1	1.0
BZV55C6V2	5.89	6.2	6.51	5	10	1.0	200	0.1	2.0
BZV55C6V8	6.46	6.8	7.14	5	8	1.0	150	0.1	3.0
BZV55C7V5	7.13	7.5	7.88	5	7	1.0	50	0.1	5.0
BZV55C8V2	7.79	8.2	8.61	5	7	1.0	50	0.1	6.2
BZV55C9V1	8.65	9.1	9.56	5	10	1.0	50	0.1	6.8
BZV55C10	9.50	10	10.50	5	15	1.0	70	0.1	7.5
BZV55C11	10.45	11	11.55	5	20	1.0	70	0.1	8.2
BZV55C12	11.40	12	12.60	5	20	1.0	90	0.1	9.1
BZV55C15	14.25	15	15.75	5	30	1.0	110	0.1	11
BZV55C16	15.20	16	16.80	5	40	1.0	170	0.1	12
BZV55C18	17.10	18	18.90	5	50	1.0	170	0.1	13
BZV55C20	19.00	20	21.00	5	55	1.0	220	0.1	15
BZV55C22	20.90	22	23.10	5	55	1.0	220	0.1	16
BZV55C24	22.80	24	25.20	5	80	1.0	220	0.1	18
BZV55C27	25.65	27	28.35	5	80	1.0	220	0.1	20
BZV55C30	28.50	30	31.50	5	80	1.0	220	0.1	22
BZV55C33	31.35	33	34.65	5	80	1.0	220	0.1	24
BZV55C36	34.20	36	37.80	5	80	1.0	220	0.1	27
BZV55C39	37.05	39	40.95	2.5	90	0.5	500	0.1	28
BZV55C43	40.85	43	45.15	2.5	90	0.5	600	0.1	32
BZV55C47	44.65	47	49.35	2.5	110	0.5	700	0.1	35
BZV55C51	48.45	51	53.55	2.5	125	0.5	700	0.1	38
BZV55C56	53.20	56	58.80	2.5	135	0.5	1000	0.1	42
BZV55C62	58.90	62	65.10	2.5	150	0.5	1000	0.1	47
BZV55C68	64.60	68	71.40	2.5	160	0.5	1000	0.1	51
BZV55C75	71.25	75	78.75	2.5	170	0.5	1000	0.1	56

Notes:

1. The Zener Voltage (**V_Z**) is tested under pulse condition of 10ms
2. The device numbers listed have a standard tolerance on the nominal zener voltage of **±5%**.
3. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest **Taiwan semiconductor** representative.
4. The 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 (**I_{ZT}** or **I_{ZK}**) is superimposed to **I_{ZT}** or **I_{ZK}**.

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Small Signal Diode

Rating and Sharacteristic Curves

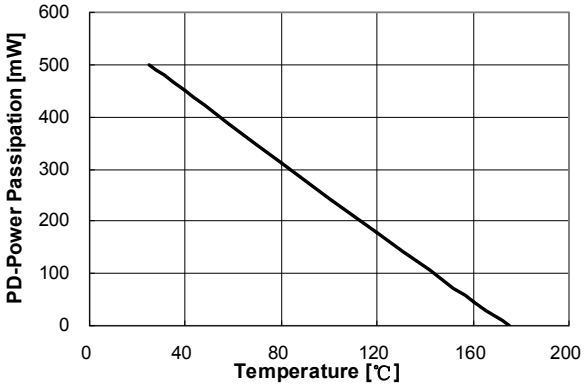


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

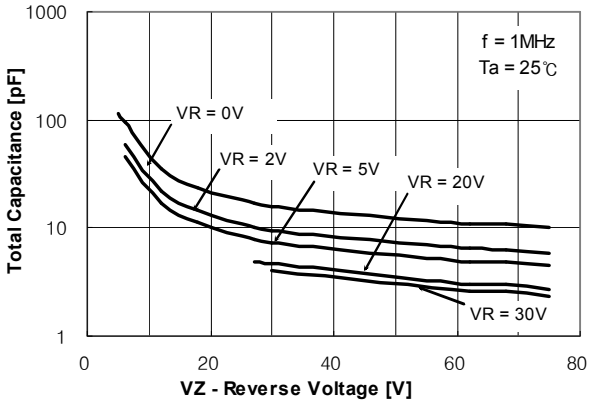


Figure 2. Total Capacitance

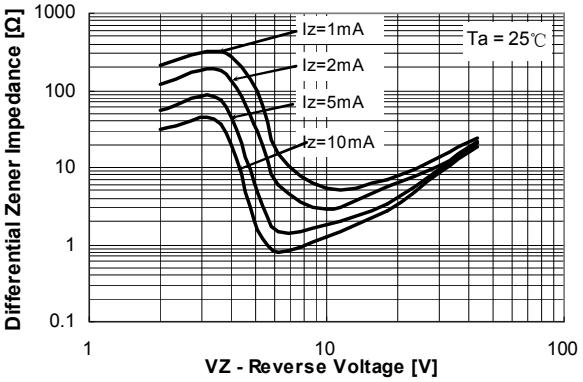


Figure 3. Differential Impedance vs. Zener Voltage

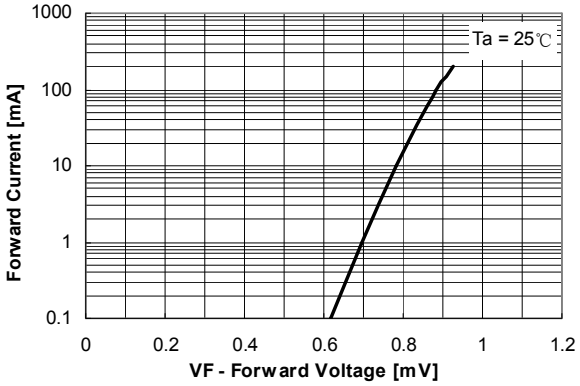


Figure 4. Forward Current vs. Forward Voltage

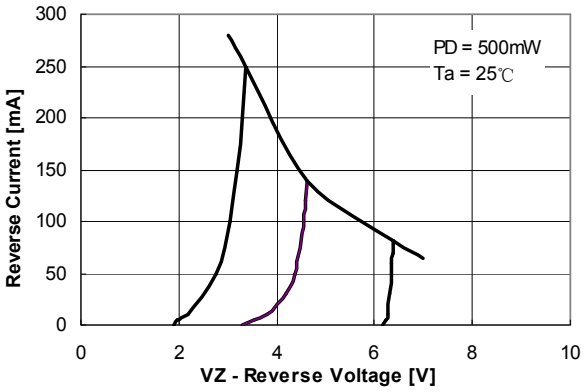


Figure 5. Reverse Current vs. Reverse Voltage

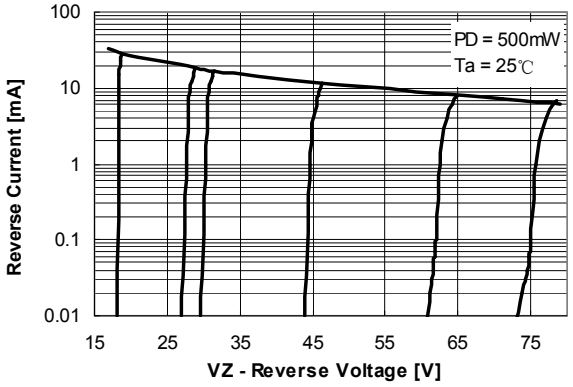


Figure 6. Reverse Current vs. Reverse Voltage

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Small Signal Diode

Tape & Reel specification

Symbol		
C	178 ± 1	330 ± 1
	55 Min	100Min

14.4max

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