LITE-ON SEMICONDUCTOR

BZX55B2V4 thru BZX55B75

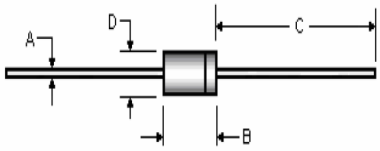
DO-35 Hermetically Sealed Glass Zener Voltage Regulators

REVERSE VOLTAGE – 2.4 to 75 Volts
POWER DISSIPATION – 0.5 Watts

FEATURES

- Zener voltage range 2.4 to 75 volts
- DO-35 package (JEDEC)
- 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
- Color band indicates negative polarity

DO-35



DO-35		
DIM.	MIN.	MAX.
A	0.46	0.55
B	3.05	5.08
C	25.40	38.10
D	1.53	2.28
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

MAXIMUM RATINGS

PARAMTER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	500	mW
Storage temperature range	T_{STG}	-65 ~ +175	°C
Operating junction temperature	T_{OPR}	+175	°C

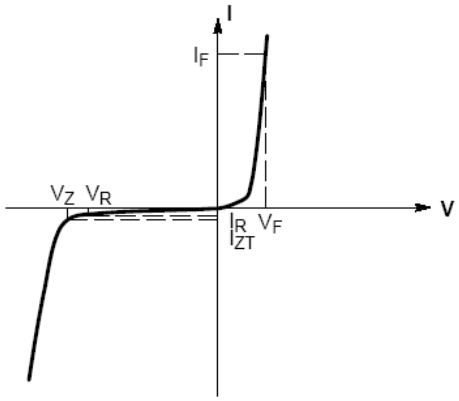
These ratings are limiting values above which the serviceability of the diode may be impaired

DEVICE MARKING

P/N	MARKING	PIN DIAGRAM	EQIVALENT CIRCUIT DIAGRAM
BZX55Bxxx	Device code : 55Bxxx B : V_Z tolerance		

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMTER
V_Z	Reverse zener voltage @ I_{ZT}
I_{ZT}	Reverse current
Z_{ZT}	Maximum zener impedance @ I_{ZT}
I_{ZK}	Reverse current
Z_{ZK}	Maximum zener impedance @ I_{ZK}
I_R	Reverse leakage current @ V_R
V_R	Reverse voltage
I_F	Forward current
V_F	Forward voltage @ I_F



ELECTRICAL CHARACTERISTICS T_A = 25°C unless otherwise noted

P/N	V_Z@I_Z(V)		I_{ZT}(mA)	MAX.				V_R(V)
	MIN.	MAX.		Z_{ZV}@I_{ZT}(Ω)	I_{ZK}(mA)	Z_{ZK}@I_{ZK}(Ω)	I_R@V_R(uA)	
BZX55B 2V4	2.35	2.45	5	85	1	600	50	1
BZX55B 2V7	2.65	2.75	5	85	1	600	10	1
BZX55B 3V0	2.94	3.06	5	85	1	600	4	1
BZX55B 3V3	3.23	3.37	5	85	1	600	2	1
BZX55B 3V6	3.53	3.67	5	85	1	600	2	1
BZX55B 3V9	3.82	3.98	5	85	1	600	2	1
BZX55B 4V3	4.21	4.39	5	75	1	600	1	1
BZX55B 4V7	4.61	4.79	5	60	1	600	0.5	1
BZX55B 5V1	5.00	5.20	5	35	1	550	0.1	1
BZX55B 5V6	5.49	5.71	5	25	1	450	0.1	1
BZX55B 6V2	6.08	6.32	5	10	1	200	0.1	2
BZX55B 6V8	6.66	6.94	5	8	1	150	0.1	3
BZX55B 7V5	7.33	7.63	5	7	1	50	0.1	5
BZX55B 8V2	8.04	8.36	5	7	1	50	0.1	6.2
BZX55B 9V1	8.92	9.28	5	10	1	50	0.1	6.8
BZX55B 10	9.80	10.20	5	15	1	70	0.1	7.5
BZX55B 11	10.78	11.22	5	20	1	70	0.1	8.2
BZX55B 12	11.76	12.24	5	20	1	90	0.1	9.1
BZX55B 13	12.74	13.26	5	26	1	110	0.1	10
BZX55B 15	14.70	15.30	5	30	1	110	0.1	11
BZX55B 16	15.68	16.32	5	40	1	170	0.1	12
BZX55B 18	17.64	18.36	5	50	1	170	0.1	13
BZX55B 20	19.60	20.40	5	55	1	220	0.1	15
BZX55B 22	21.56	22.44	5	55	1	220	0.1	16
BZX55B 24	23.52	24.48	5	80	1	220	0.1	18
BZX55B 27	26.46	27.54	5	80	1	220	0.1	20
BZX55B 30	29.40	30.60	5	80	1	220	0.1	22
BZX55B 33	32.34	33.66	5	80	1	220	0.1	24
BZX55B 36	35.28	36.72	5	80	1	220	0.1	27
BZX55B 39	38.22	39.78	2.5	90	0.5	500	0.1	28
BZX55B 43	42.14	43.86	2.5	90	0.5	600	0.1	32
BZX55B 47	46.06	47.94	2.5	110	0.5	700	0.1	35
BZX55B 51	49.98	52.02	2.5	125	0.5	700	0.1	38
BZX55B 56	54.88	57.12	2.5	135	0.5	1000	0.1	42
BZX55B 62	60.76	63.24	2.5	150	0.5	1000	0.1	47
BZX55B 68	66.64	69.36	2.5	160	0.5	1000	0.1	51
BZX55B 75	73.50	76.50	2.5	170	0.5	1000	0.1	56

V_F (Forward Voltage) = 1.0 V Maximum @ I_F = 100 mA for all types

Notes:

1. TOLERANCE AND VOLTAGE DESIGNATION

The type numbers listed have zener voltage as shown.

2. SPECIALS AVAILABLE INCLUDE

Nominal zener voltages between the voltages shown and tighter voltage, for detailed information on price, availability and delivery, contact you nearest Liteon Semiconductor Corp. representative.

3. ZENER VOLTAGE (V_Z) MEASUREMENT

The zener voltage is measured under pulse conditions such that T_J is no more than 2°c above T_A.

4. ZENER IMPEDANCE (Z_Z) DERIVATION

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}) is superimposed to I_{ZT} .

RATING AND CHARACTERISTIC CURVES
BZX55B2V4 thru BZX55B75

Figure 1. Power Dissipation vs Ambient Temperature

Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

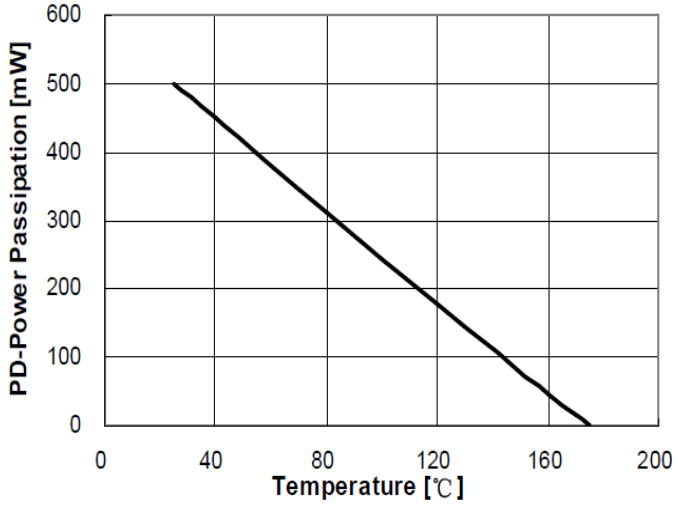


Figure 2. Total Capacitance

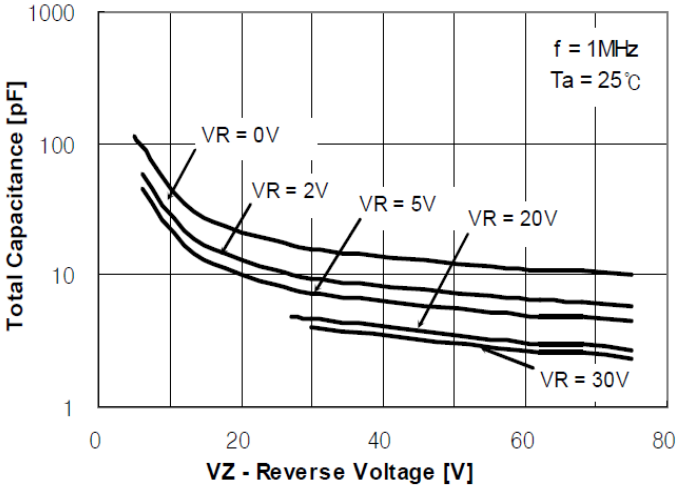


Figure 3. Differential Impedance vs. Zener Voltage

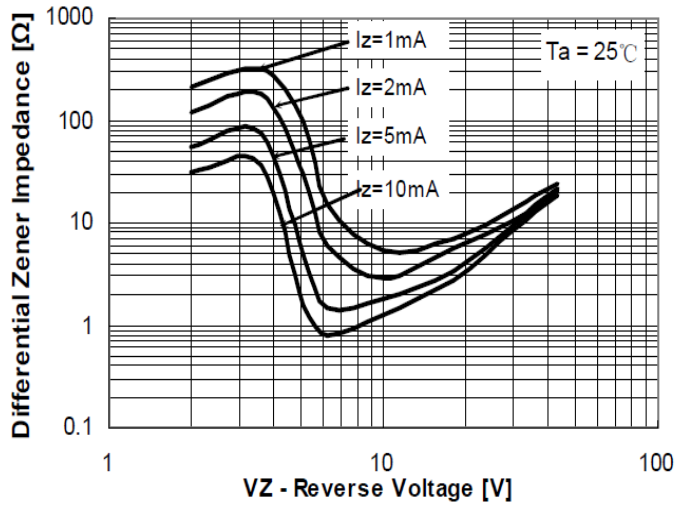


Figure 4. Forward Current vs. Forward Voltage

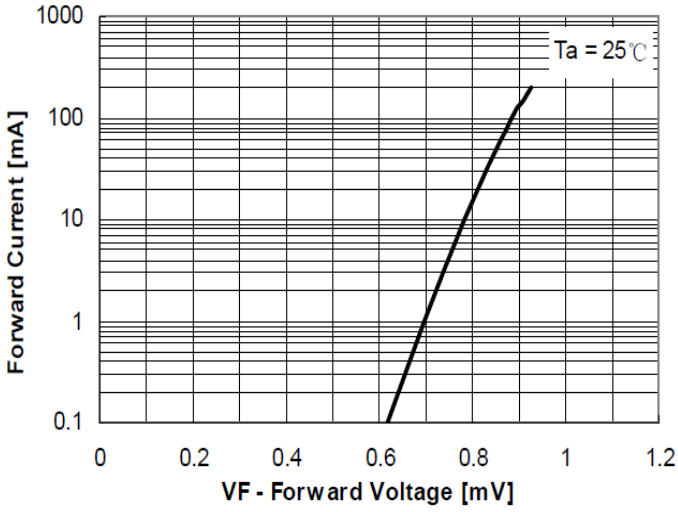


Figure 5. Reverse Current vs. Reverse Voltage

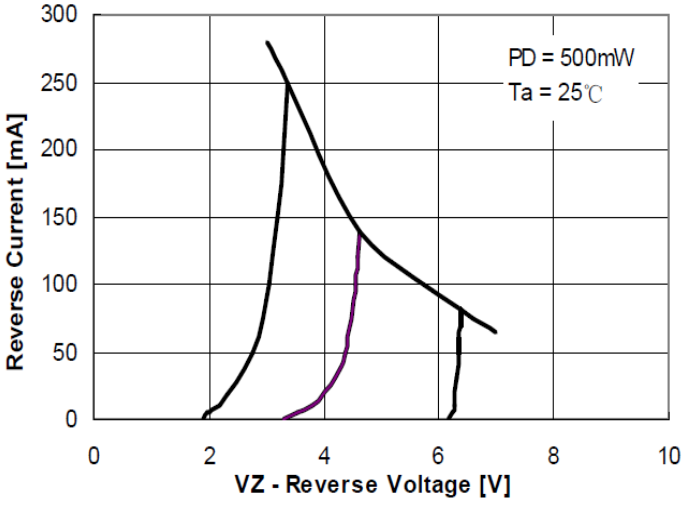
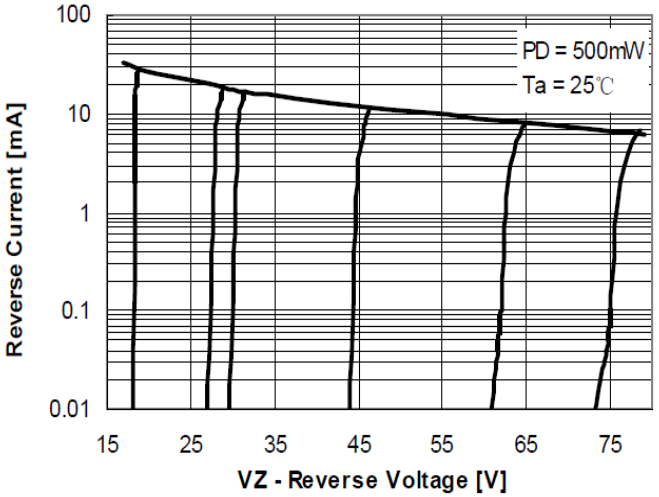


Figure 6. Reverse Current vs. Reverse Voltage



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