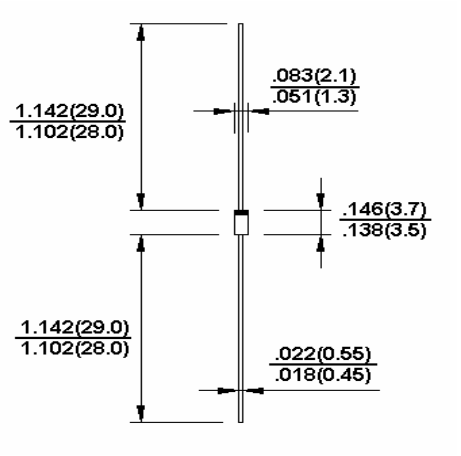
1N5221B - 1N5263B

0.5W Hermetically Sealed Glass Zener Diodes

DO-35

Features

- ✧ Zener voltage range 2.4 to 56 volts
- ✧ DO-35 package (JEDEC)
- ✧ Through-hole device type mounting
- ✧ Hemetically sealed glass
- ✧ Compression bonded construction
- ✧ All extermal surface are corrosion resistant and leads are readily solderable
- ✧ RoHS compliant
- ✧ Solder hot dip Tin(Sn) lead finish
- ✧ Cathode indicated by polarity band



Dimensions is inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°Cambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units
Power Dissipation	Pd	500	mW
Forward Voltage @ IF=200mA	V_F	1.1	V
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 200	°C

RATINGS AND CHARACTERISTIC CURVES (1N5221B THRU 1N5263B)

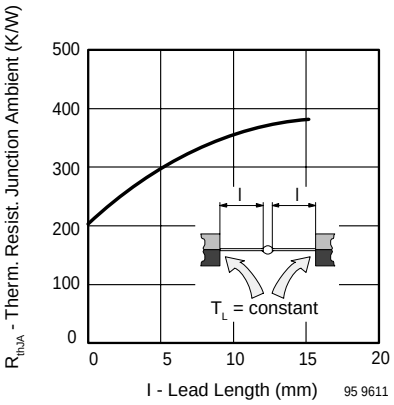


Figure 1. Thermal Resistance vs. Lead Length

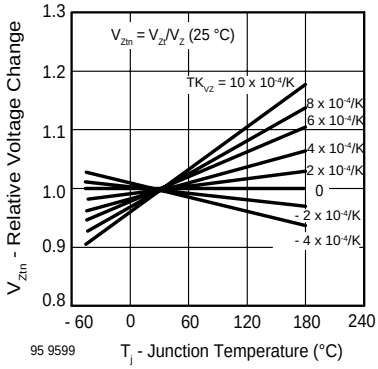


Figure 3. Typical Change of Working Voltage vs. Junction Temperature

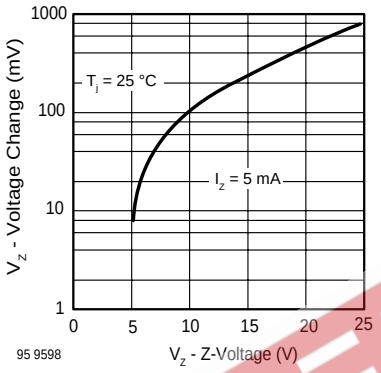


Figure 2. Typical Change of Working Voltage under Operating Conditions at T_{amb} = 25 °C

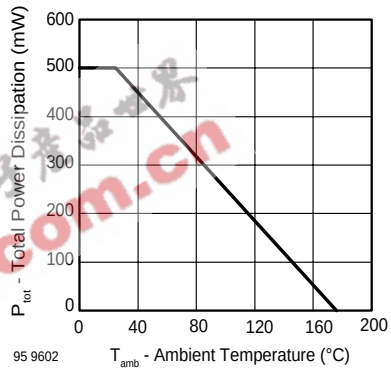


Figure 4. Total Power Dissipation vs. Ambient Temperature

RATINGS AND CHARACTERISTIC CURVES (1N5221B THRU 1N5263B)

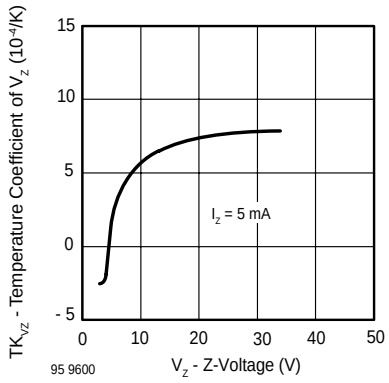


Figure 5. Temperature Coefficient of Vz vs. Z-Voltage

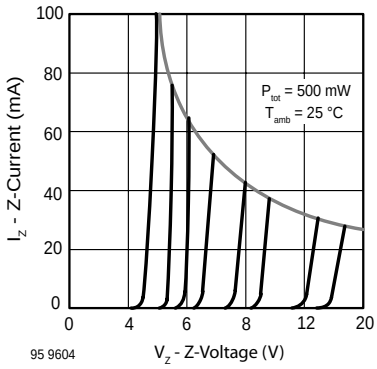


Figure 8. Z-Current vs. Z-Voltage

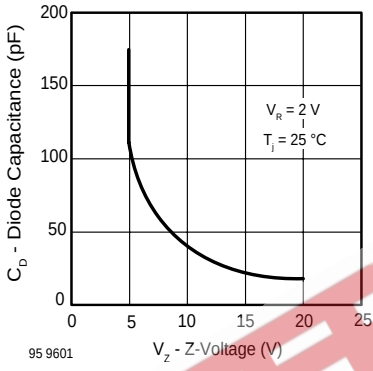


Figure 6. Diode Capacitance vs. Z-Voltage

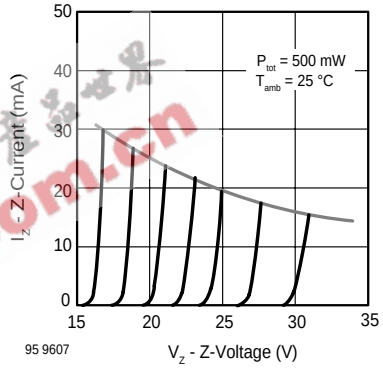


Figure 9. Z-Current vs. Z-Voltage

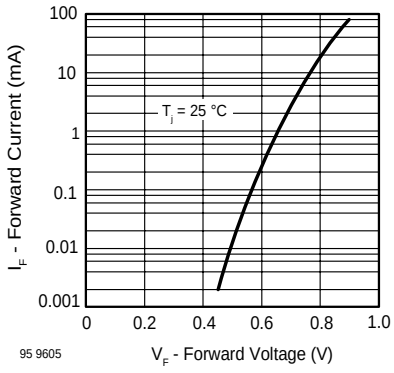


Figure 7. Forward Current vs. Forward Voltage

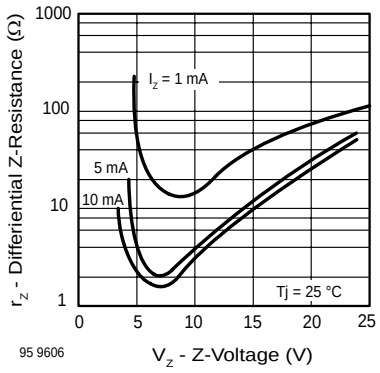


Figure 10. Differential Z-Resistance vs. Z-Voltage

RATINGS AND CHARACTERISTIC CURVES (1N5221B THRU 1N5263B)

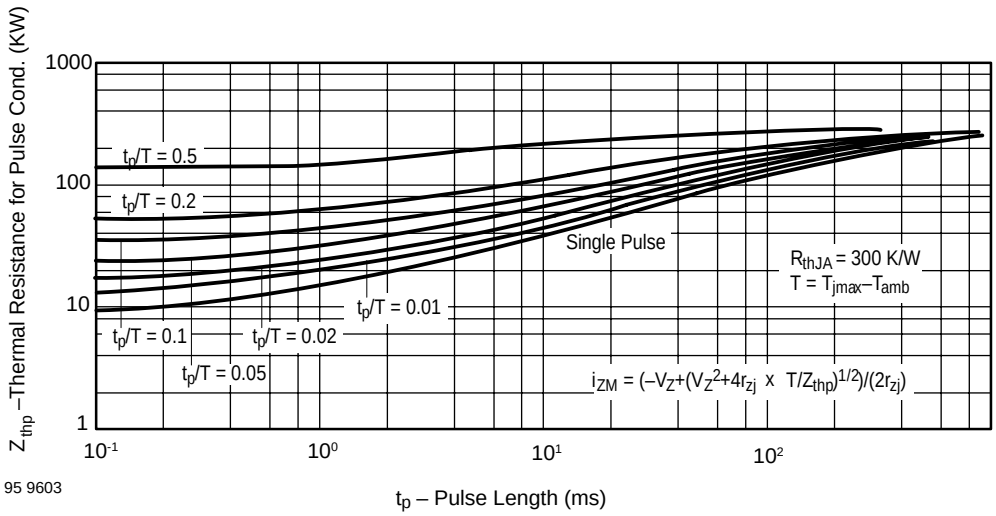


Figure 11. Thermal Response

ELECTRICAL CHARACTERISTICS

(Ratings at TA=25°C ambient temperature unless otherwise specified).

Device	V_Z @ I_{zt} Voltage Nominal	Current I_{ZT} (mA)	Z_{ZT} @ I_{ZT} Ω Max.	Z_{ZK} @I_{ZK}=0.25mA Ω Max.	I_R @ V_R uA Max.	V_R (Volts)
1N5221B	2.4	20	30	1200	100	1.0
1N5222B	2.5	20	30	1250	100	1.0
1N5223B	2.7	20	30	1300	75	1.0
1N5224B	2.8	20	30	1400	75	1.0
1N5225B	3.0	20	29	1600	50.0	1.0
1N5226B	3.3	20	28	1600	25.0	1.0
1N5227B	3.6	20	24	1700	15.0	1.0
1N5228B	3.9	20	23	1900	10.0	1.0
1N5229B	4.3	20	22	2000	5.0	1.0
1N5230B	4.7	20	19	1900	5.0	2.0
1N5231B	5.1	20	17	1600	5.0	2.0
1N5232B	5.6	20	11	1600	5.0	3.0
1N5233B	6.0	20	7	1600	5.0	3.5
1N5234B	6.2	20	7	1000	5.0	4.0
1N5235B	6.8	20	5	750	3.0	5.0
1N5236B	7.5	20	6	500	3.0	6.0
1N5237B	8.2	20	8	500	3.0	6.5
1N5238B	8.7	20	8	600	3.0	6.5
1N5239B	9.1	20	10	600	3.0	7.0
1N5240B	10	20	17	600	2.0	8
1N5241B	11	20	22	600	1.0	8.4
1N5242B	12	20	30	600	0.5	9
1N5243B	13	9.5	13	600	0.1	10
1N5244B	14	9.0	15	600	0.1	10
1N5245B	15	8.5	16	600	0.1	11
1N5246B	16	7.8	17	600	0.1	12
1N5247B	17	7.4	19	600	0.1	13
1N5248B	18	7.0	21	600	0.1	14
1N5249B	19	6.6	23	600	0.1	14
1N5250B	20	6.2	25	600	0.1	15
1N5251B	22	5.6	29	600	0.1	17
1N5252B	24	5.2	33	600	0.1	18
1N5253B	25	5.0	35	600	0.1	19
1N5254B	27	4.6	41	600	0.1	21
1N5255B	28	4.5	44	600	0.1	21
1N5256B	30	4.2	49	600	0.1	23
1N5257B	33	3.8	58	700	0.1	25
1N5258B	36	3.4	70	700	0.1	27
1N5259B	39	3.2	80	800	0.1	30
1N5260B	43	3.0	93	900	0.1	33
1N5261B	47	2.7	105	1000	0.1	36
1N5262B	51	2.5	125	1100	0.1	39
1N5263B	56	2.2	150	1300	0.1	43

Notes:

1. The type numbers listed have zener voltage as whown and have a standard tolerance on the nominal zener voltage of ±5%. Device of ±2% is indicated by a "C" instead of a "B".
2. Nominal zener voltages between the voltages shown and tighter voltage, for detalied information on price, availability and delivery.
3. The zener voltage(V_Z) is tested under pulse condition. The measured V_Z is guaranteed to be within specification with device junction in thermal equilibrium.
4. 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}.