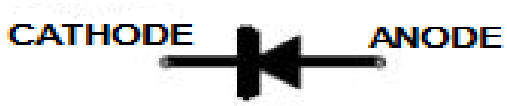
DESCRIPTION

The 1N5221B~1N5272B are available in DO-35 Package

PIN DESCRIPTION



FEATURES

- 500mW DO-35
- Zener voltage regulator diodes
- Hermetically sealed glass silicon zener diodes
- Complete voltage range_2.4 to 43 volts
- RoHS Compliant
- Available in DO-35 Package

ORDERING INFORMATION

Package Type	Part Number
DO-35	1N5221B
	1N5222B
	1N5223B
	1N5224B
	1N5225B
	1N5226B
	1N5227B
	1N5228B
	1N5229B
	1N5230B
	1N5231B
	1N5232B
	1N5233B
	1N5234B
	1N5235B
	1N5236B
	1N5237B
	1N5238B
	1N5239B
	1N5240B
	1N5241B
	1N5242B
	1N5243B
	1N5244B
	1N5245B
	1N5246B
	1N5247B

Package Type	Part Number
DO-35	1N5248B
	1N5249B
	1N5250B
	1N5251B
	1N5252B
	1N5253B
	1N5254B
	1N5255B
	1N5256B
	1N5257B
	1N5258B
	1N5259B
	1N5260B
	1N5261B
	1N5262B
	1N5263B
	1N5264B
	1N5265B
	1N5266B
	1N5267B
	1N5268B
	1N5269B
	1N5270B
	1N5271B
	1N5272B
Note	5,000pcs/Tape
AiT provides all RoHS Compliant Products	

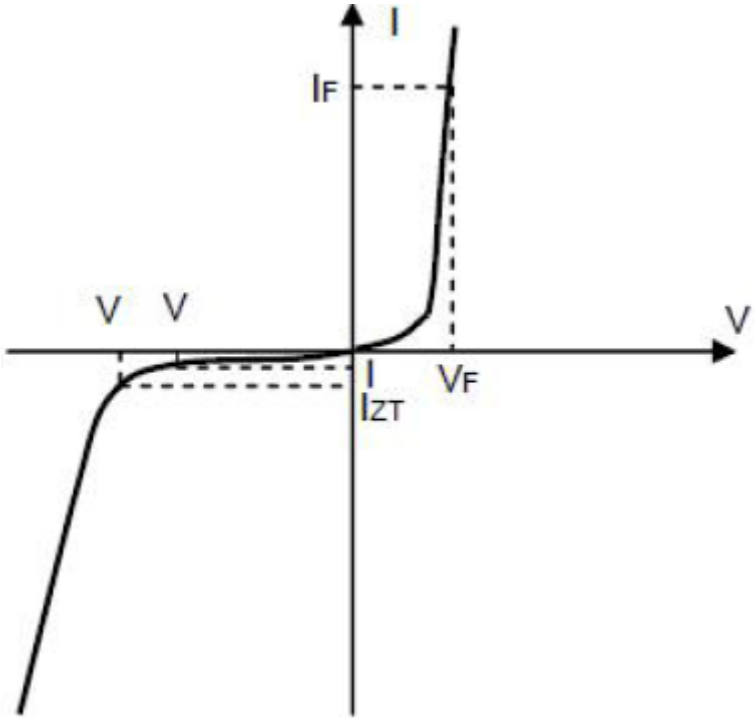
ABSOLUTE MAXIMUM RATINGS

T_J=25℃

P_V, Power dissipation(Tamb≤50℃)	0.5W
T_J, Junction temperature	175℃
T_{STG}, Storage temperature range	-65 ~ +175℃
V_F, Forward voltage(I_F=200mA)	<1.1V

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL PARAMETER



ZENER VOLTAGE REGULATOR

T_A=25℃, V_{FMAX}=1.1V @ I_F=200mA P=500 (mW)

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
L_{ZT}	Reverse current
Z_{ZT}	Maximum Zener impedance@ I_{ZT}
L_{ZK}	Reverse current
Z_{ZK}	Maximum Zener impedance @ I_{ZK}
I_R	Reverse leakage current @V_R
V_R	Breakdown voltage
I_F	Forward current
V_F	Forward voltage @I_F

ELECTRICAL CHARACTERISTICS

T_A=25℃, V_{FMAX}=1.1V @ I_F=200mA P=500 (mW)

Part Number	Nominal Zener Voltage	Test Current	Max Zener Impedance A and B Suffix only		Max Reverse Leakage Current		Max Zener Voltege Temperature Coff (A and B suffix only)
	V_Z@I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK}@ I_{ZK}=0.25mA	I_R	V_R	V_Z
	Volts	mA	Ω	Ω	uA Max	Volts B	(%/℃)
1N5221B	2.4	20	30	1200	100	1.0	-0.085
1N5222B	2.5		30	1250	100		-0.085
1N5223B	2.7		30	1300	75		-0.08
1N5224B	2.8		30	1400	75		-0.08
1N5225B	3.0		29	1600	50		-0.075
1N5226B	3.3	20	28	1600	25	1.0	-0.07
1N5227B	3.6		24	1700	15	1.0	-0.065
1N5228B	3.9		23	1900	10	1.0	-0.06
1N5229B	4.3		22	2000	5.0	1.0	±0.055
1N5230B	4.7		19	1900	5.0	2.0	±0.03
1N5231B	5.1	20	17	1600	5.0	2.0	±0.03
1N5232B	5.6		11	1600	5.0	3.0	+0.038
1N5233B	6		7.0	1600	5.0	3.5	+0.038
1N5234B	6.2		7.0	1000	5.0	4.0	+0.045
1N5235B	6.8		5.0	750	3.0	5.0	+0.05
1N5236B	7.5	20	6.0	500	3.0	6.0	+0.058
1N5237B	8.2		8.0	500		6.5	+0.062
1N5238B	8.7		8.0	600		6.5	+0.065
1N5239B	9.1		10	600		7.0	+0.068
1N5240B	10		17	600		8.0	+0.075
1N5241B	11	20	22	600	2.0	8.4	+0.076
1N5242B	12	20	30		1.0	9.1	+0.077
1N5243B	13	9.5	13		0.5	9.9	+0.079
1N5244B	14	9.0	15		0.1	10	+0.082
1N5245B	15	8.5	16		0.1	11	+0.082
1N5246B	16	7.8	17	600	0.1	12	+0.083
1N5247B	17	7.4	19			13	+0.084
1N5248B	18	7.0	21			14	+0.085
1N5249B	19	6.6	23			14	+0.086
1N5250B	20	6.2	25			15	+0.086

T_A=25℃, V_{FMAX}=1.1V @ I_F=200mA P=500 (mW)

Part Number	Nominal Zener Voltage	Test Current	Max Zener Impedance A and B Suffix only		Max Reverse Leakage Current		Max Zener Voltege Temperature Coff (A amd Bsuffix only)
	V_Z@I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK}@ IZK=0.25mA	I_R	V_R	V_Z
	Volts	mA	Ω	Ω	uA Max	Volts B	(%/℃)
1N5251B	22	5.6	29			17	+0.087
1N5252B	24	5.2	33			18	+0.088
1N5253B	25	5.0	35	600	0.1	19	+0.089
1N5254B	27	4.6	41			21	+0.090
1N5255B	28	4.5	44			21	+0.091
1N5256B	30	4.2	49	600		23	+0.091
1N5257B	33	3.8	58	700		25	+0.092
1N5258B	36	3.4	70	700	0.1	27	+0.093
1N5259B	39	3.2	80	800		30	+0.094
1N5260B	43	3.0	93	900		33	+0.095
1N5261B	47	2.7	105	1000		36	+0.095
1N5262B	51	2.5	125	1100		39	+0.096
1N5263B	56	2.2	150	1300	0.1	43	+0.096
1N5264B	60	2.1	170	1400		46	+0.097
1N5265B	62	2.0	185	1400		47	+0.097
1N5266B	68	1.8	230	1600		52	+0.097
1N5267B	75	1.7	270	1700		56	+0.098
1N5268B	82	1.5	330	2000	0.1	62	+0.098
1N5269B	87	1.4	370	2200		68	+0.099
1N5270B	91	1.4	400	2300		69	+0.099
1N5271B	100	1.3	500	2600		76	+0.110
1N5272B	110	1.1	750	3000	0.1	84	+0.110

NOTE: Valid provided that leads at a distance of 8mm from case are kept at ambient temperature

Tested with pulese t_P=40ms

TYPICAL CHARACTERISTICS

Figure 1. P-T_A

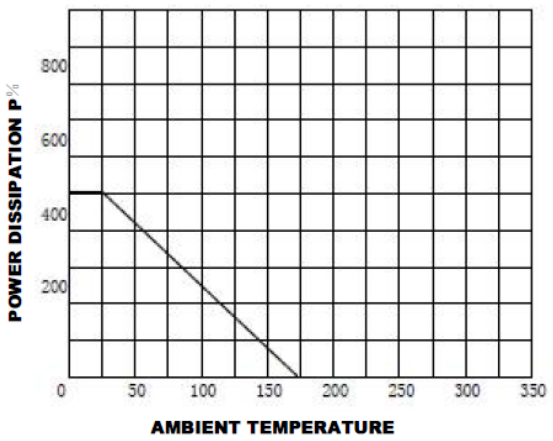


Figure 2. Effect of Zener Current

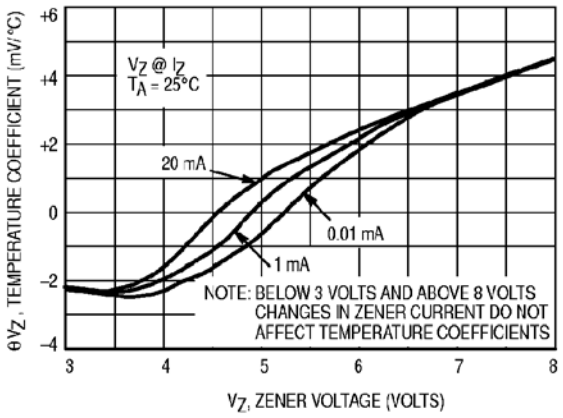
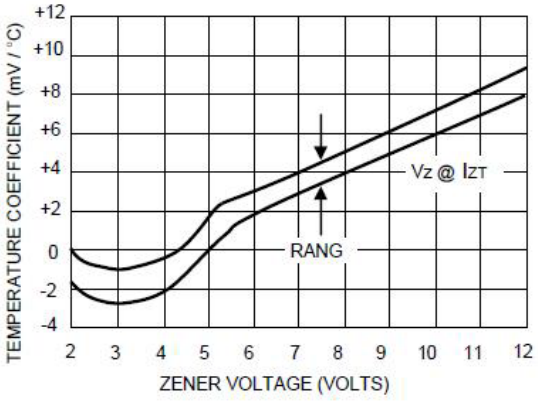


Figure 3. Temperature Coefficients

(-55℃ to +150℃ temperature;90% of the units are in the ranges indicated)



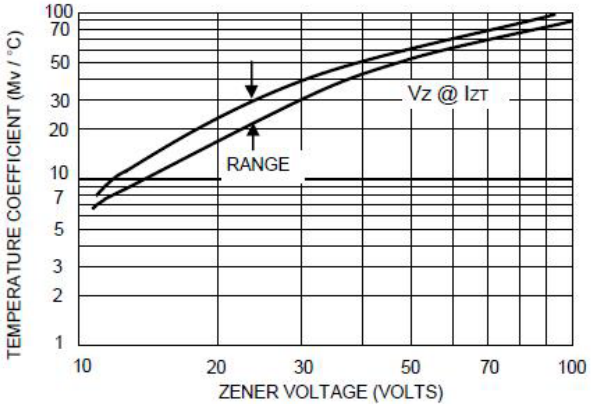


Figure 4. Typical Capacitance versus V_Z

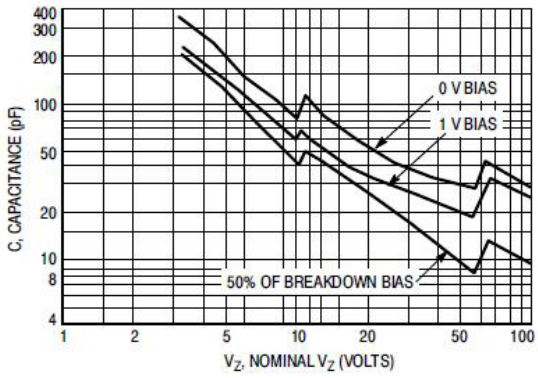


Figure 5. Typical Forward Characteristics

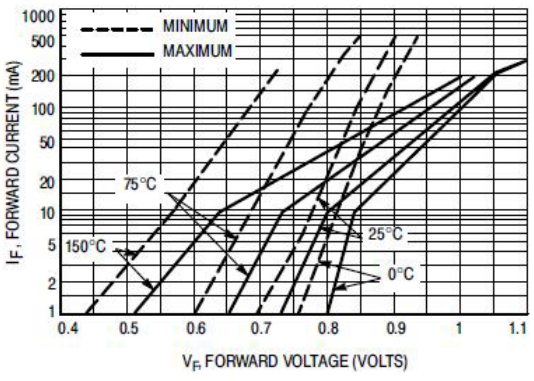


Figure 6. Effect of Zener Current on Zener Impedance

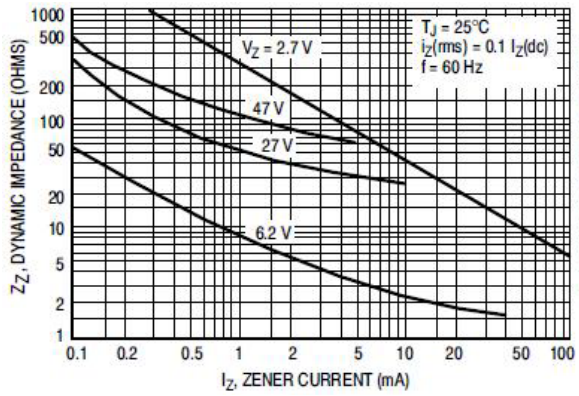


Figure7. Effect of Zener Voltage on Zener Impedance

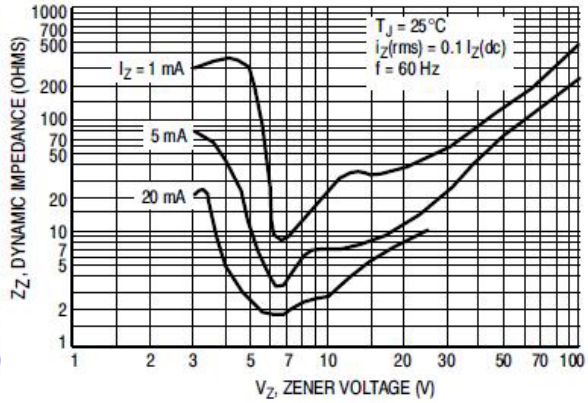
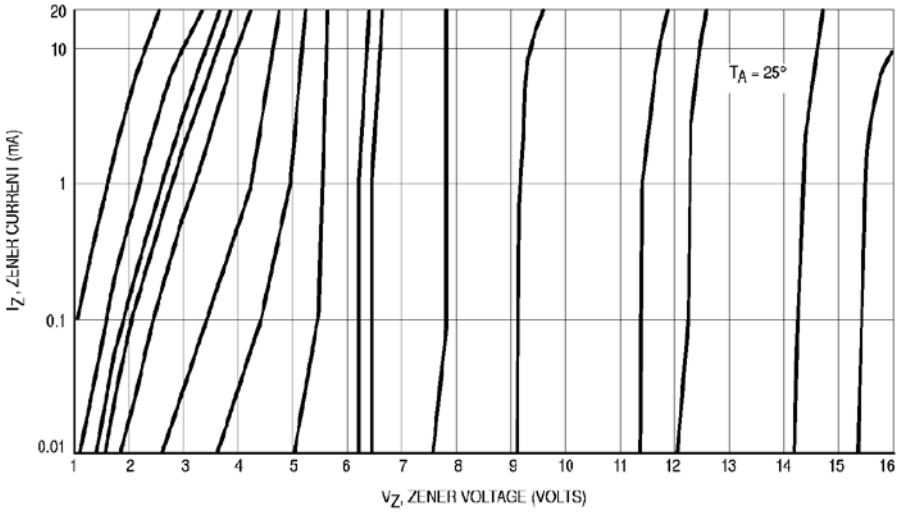
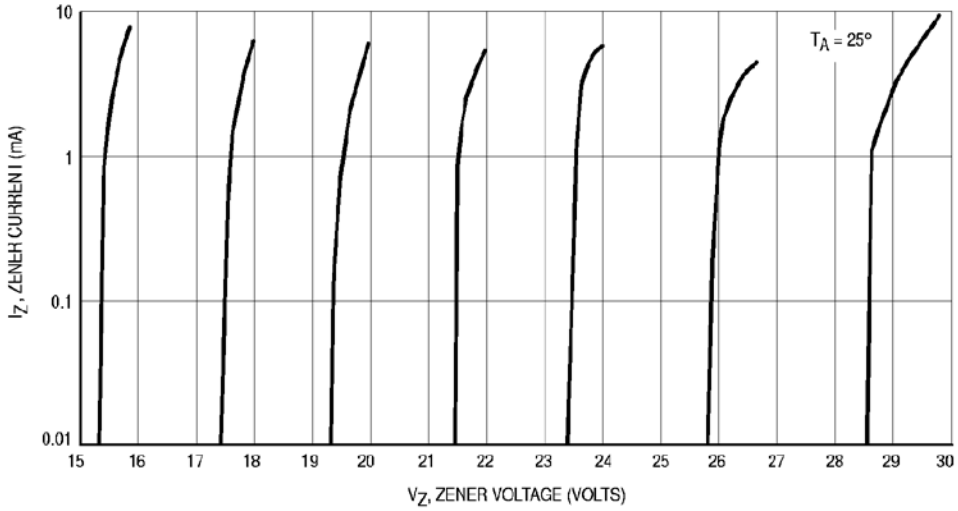


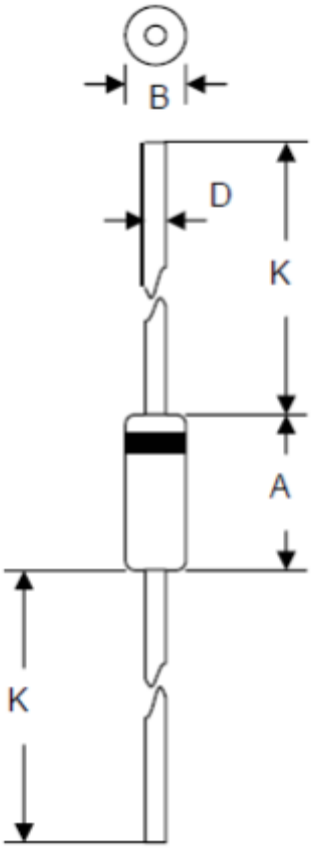
Figure 8. Zener Voltage- Zener Current





PACKAGE INFORMATION

Dimension in DO-35 Package (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.6	4.0	0.14	0.157
B	1.6	2.0	0.063	0.079
D	0.4	0.6	0.016	0.024
K	28	30	1.102	1.181

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