

Standard tolerances are 5%  
20%, 10%, 2% and 1% are available

## 400 mW low voltage avalanche low noise silicon zener diodes

### FEATURES

- Controlled avalanche
- Voltages from 4.3 to 10 V
- Low reverse leakage
- Low noise
- Hermetically sealed glass package
- APD can select any voltage in tolerances 1%, 2%, 5% and 10% at your application's test current.

### MAXIMUM RATINGS

- Junction Temperature -85°C to +175°C
- Storage Temperature -65°C to +200°C
- DC Power Dissipation: 400mW @  $T_L = 50^\circ\text{C}$
- Derate above 50°C: 2.67mW/°C

### ELECTRICAL CHARACTERISTICS @ 25°C

Type (1)	Nominal Zener Voltage @ $I_z$	Maximum Impedance (2)		Maximum Reverse Leakage		Maximum Noise Density @ 100 $\mu\text{A}$ (3)	Maximum Regulation	
		$Z_z$	$I_z$	$I_r$ @ $V_r$	$\Delta V_z$		$I_z$	
	Vdc	$\Omega$	mA	$\mu\text{A}$	Vdc	$\mu\text{V}/\text{Hz}$	Vdc	mA
1N6062B	4.3	18	20	2.0	1.5	1	0.75	2.0
1N6063B	4.7	10	10	2.0	2.0	1	0.50	1.0
1N6064B	5.1	10	5	2.0	3.0	1	0.30	0.25
1N6065B	5.6	40	1	2.0	4.5	1	0.10	0.05
1N6066B	6.2	45	1	0.5	5.6	1	0.10	0.01
1N6067B	6.8	50	1	0.05	6.2	1	0.10	0.01
1N6068B	7.5	50	1	0.01	6.8	1	0.10	0.01
1N6069B	8.2	60	1	0.01	7.5	1	0.10	0.01
1N6090B	9.1	60	1	0.01	8.2	2	0.10	0.01
1N6091B	10.0	60	1	0.01	9.1	2	0.10	0.01

Note 1 The JEDEC type numbers shown with a B suffix have a  $\pm 5\%$  tolerance. No suffix indicates a  $\pm 20\%$  tolerance. Suffix A denotes a  $\pm 10\%$  tolerance, suffix C denotes a  $\pm 2\%$  tolerance and suffix D denotes  $\pm 1\%$  tolerance.

Note 2 The zener impedance is derived from the 60 Hz ac voltage, which results when an ac current having an rms value equal to 10% of the DC zener current ( $I_{zT}$ ) is superimposed on  $I_{zT}$ .

Note 3 Measured from 1 KHz to 3 KHz in noise density measurement circuit shown on the following page.

### MECHANICAL CHARACTERISTICS

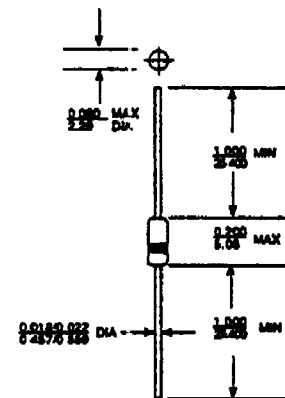


FIGURE 1 all dimensions in INCH  
mm

CASE: Hermetically sealed  
glass package (DO-35)  
FINISH: Corrosion resistant.  
Leads are tin plated.  
THERMAL RESISTANCE:  
200°C/W junction to lead at  
0.375-inches from body.  
POLARITY: Cathode banded.  
WEIGHT: 0.2 grams (typ).

This series also available in DO-7 package.  
Consult factory for availability.

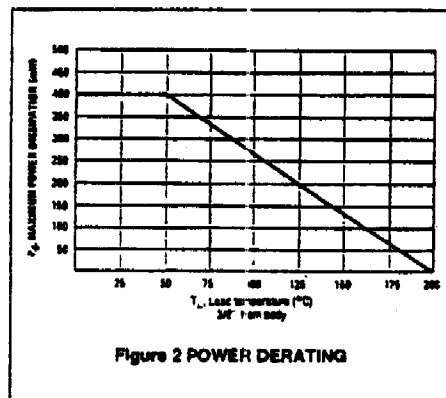
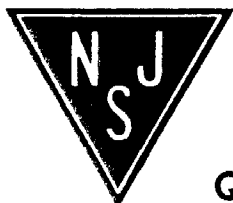


Figure 2 POWER DERATING



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