

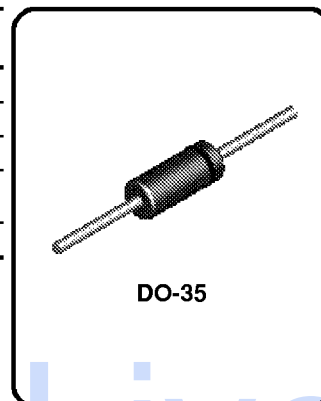
## 1N5226B - 1N5257B Series Half Watt Zeners

### Absolute Maximum Ratings\*

TA = 25°C unless otherwise noted

Tolerance: B = 5%

| Parameter   | Value       | Units |
|---|-------------|-------|
| Storage Temperature Range                         | -65 to +200 | °C    |
| Maximum Junction Operating Temperature            | + 200       | °C    |
| Lead Temperature (1/16" from case for 10 seconds) | + 230       | °C    |
| Total Device Dissipation                          | 500         | mW    |
| Derate above 75°C                                 | 4.0         | mW/°C |
| Surge Power**                                     | 10          | W     |



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

\*\*Non-recurrent square wave PW= 8.3 ms, TA= 55 degrees C.

#### NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Electrical Characteristics

TA = 25°C unless otherwise noted

| Device         | V <sub>Z</sub><br>(V) | Z <sub>Z</sub><br>(Ω) | @ | I <sub>ZT</sub><br>(mA) | Z <sub>ZK</sub><br>(Ω) | @ | I <sub>ZK</sub><br>(mA) | V <sub>R</sub><br>(V) | @ | I <sub>R</sub><br>(μA) | T <sub>C</sub><br>(%/°C) |
|----------------|-----------------------|-----------------------|---|-------------------------|------------------------|---|-------------------------|-----------------------|---|------------------------|--------------------------|
| <b>1N5226B</b> | 3.3                   | 28                    |   | 20                      | 1,600                  |   | 0.25                    | 1.0                   |   | 25                     | - 0.07                   |
| 1N5227B        | 3.6                   | 24                    |   | 20                      | 1,700                  |   | 0.25                    | 1.0                   |   | 15                     | - 0.065                  |
| <b>1N5228B</b> | 3.9                   | 23                    |   | 20                      | 1,900                  |   | 0.25                    | 1.0                   |   | 10                     | - 0.06                   |
| <b>1N5229B</b> | 4.3                   | 22                    |   | 20                      | 2,000                  |   | 0.25                    | 1.0                   |   | 5.0                    | +/- 0.055                |
| <b>1N5230B</b> | 4.7                   | 19                    |   | 20                      | 1,900                  |   | 0.25                    | 2.0                   |   | 5.0                    | +/- 0.03                 |
| <b>1N5231B</b> | 5.1                   | 17                    |   | 20                      | 1,600                  |   | 0.25                    | 2.0                   |   | 5.0                    | +/- 0.3                  |
| <b>1N5232B</b> | 5.6                   | 11                    |   | 20                      | 1,600                  |   | 0.25                    | 3.0                   |   | 5.0                    | 0.038                    |
| <b>1N5233B</b> | 6.0                   | 7.0                   |   | 20                      | 1,600                  |   | 0.25                    | 3.5                   |   | 5.0                    | 0.038                    |
| <b>1N5234B</b> | 6.2                   | 7.0                   |   | 20                      | 1,000                  |   | 0.25                    | 4.0                   |   | 5.0                    | 0.045                    |
| <b>1N5235B</b> | 6.8                   | 5.0                   |   | 20                      | 750                    |   | 0.25                    | 5.0                   |   | 3.0                    | 0.05                     |
| <b>1N5236B</b> | 7.5                   | 6.0                   |   | 20                      | 500                    |   | 0.25                    | 6.0                   |   | 3.0                    | 0.058                    |
| <b>1N5237B</b> | 8.2                   | 8.0                   |   | 20                      | 500                    |   | 0.25                    | 6.5                   |   | 3.0                    | 0.062                    |
| 1N5238B        | 8.7                   | 8.0                   |   | 20                      | 600                    |   | 0.25                    | 6.5                   |   | 3.0                    | 0.065                    |
| <b>1N5239B</b> | 9.1                   | 10                    |   | 20                      | 600                    |   | 0.25                    | 7.0                   |   | 3.0                    | 0.068                    |
| <b>1N5240B</b> | 10                    | 17                    |   | 20                      | 600                    |   | 0.25                    | 8.0                   |   | 3.0                    | 0.075                    |
| 1N5241B        | 11                    | 22                    |   | 20                      | 600                    |   | 0.25                    | 8.4                   |   | 2.0                    | 0.076                    |
| <b>1N5242B</b> | 12                    | 30                    |   | 20                      | 600                    |   | 0.25                    | 9.1                   |   | 1.0                    | 0.077                    |

V<sub>F</sub> Forward Voltage = 1.1 V Maximum @ I<sub>F</sub> = 200 mA for all 1N5200 series

**NOTE:** National preferred devices in **BOLD**

**Series Zener**  
(continued)

**Electrical Characteristics** (continued) TA = 25°C unless otherwise noted

| Device         | V <sub>Z</sub><br>(V) | Z <sub>Z</sub><br>(Ω) | @ | I <sub>ZT</sub><br>(mA) | Z <sub>ZK</sub><br>(Ω) | @ | I <sub>ZK</sub><br>(mA) | V <sub>R</sub><br>(V) | @ | I <sub>R</sub><br>(nA) | T <sub>C</sub><br>(%/°C) |
|----------------|-----------------------|-----------------------|---|-------------------------|------------------------|---|-------------------------|-----------------------|---|------------------------|--------------------------|
| <b>1N5243B</b> | 13                    | 13                    |   | 9.5                     | 600                    |   | 0.25                    | 9.9                   |   | 500                    | 0.079                    |
| <b>1N5244B</b> | 14                    | 15                    |   | 9.0                     | 600                    |   | 0.25                    | 10                    |   | 100                    | 0.082                    |
| <b>1N5245B</b> | 15                    | 16                    |   | 8.5                     | 600                    |   | 0.25                    | 11                    |   | 100                    | 0.082                    |
| <b>1N5246B</b> | 16                    | 17                    |   | 7.8                     | 600                    |   | 0.25                    | 12                    |   | 100                    | 0.083                    |
| 1N5247B        | 17                    | 19                    |   | 7.4                     | 600                    |   | 0.25                    | 13                    |   | 100                    | 0.084                    |
| <b>1N5248B</b> | 18                    | 21                    |   | 7.0                     | 600                    |   | 0.25                    | 14                    |   | 100                    | 0.085                    |
| 1N5249B        | 19                    | 23                    |   | 6.6                     | 600                    |   | 0.25                    | 14                    |   | 100                    | 0.086                    |
| <b>1N5250B</b> | 20                    | 25                    |   | 6.2                     | 600                    |   | 0.25                    | 15                    |   | 100                    | 0.086                    |
| 1N5251B        | 22                    | 29                    |   | 5.6                     | 600                    |   | 0.25                    | 17                    |   | 100                    | 0.087                    |
| <b>1N5252B</b> | 24                    | 33                    |   | 5.2                     | 600                    |   | 0.25                    | 18                    |   | 100                    | 0.088                    |
| 1N5253B        | 25                    | 35                    |   | 5.0                     | 600                    |   | 0.25                    | 19                    |   | 100                    | 0.089                    |
| <b>1N5254B</b> | 27                    | 41                    |   | 4.6                     | 600                    |   | 0.25                    | 21                    |   | 100                    | 0.090                    |
| 1N5255B        | 28                    | 44                    |   | 4.5                     | 600                    |   | 0.25                    | 21                    |   | 100                    | 0.091                    |
| <b>1N5256B</b> | 30                    | 49                    |   | 4.2                     | 600                    |   | 0.25                    | 23                    |   | 100                    | 0.091                    |
| <b>1N5257B</b> | 33                    | 58                    |   | 3.8                     | 700                    |   | 0.25                    | 25                    |   | 100                    | 0.092                    |

V<sub>F</sub> Forward Voltage = 1.1 V Maximum @ I<sub>F</sub> = 200 mA for all 1N5200 series

**NOTE:** National preferred devices in **BOLD**

**1N5226B - 1N5257B Series**

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