

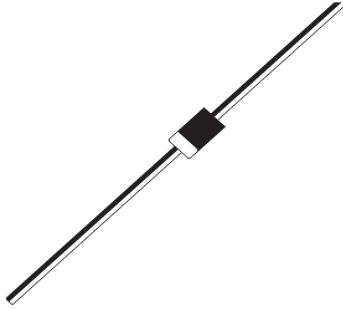


Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



## SILICON ZENERS DIODES



1N5913 - 1N5956

DO-41P

Zener Diode

### FEATURES :

- . Complete Voltage Range 3.3 to 200 Volts
- . High peak reverse power dissipation
- . High reliability
- . Low leakage current

### MAXIMUM RATINGS

Rating at 25°C ambient temperature unless otherwise specified

| DESCRIPTIONS  | SYMBOL          | VALUE       | UNIT             |
|---|-----------------|-------------|------------------|
| DC Power Dissipation at $T_L = 75^\circ\text{C}^*$    | $P_D$           | 1.5         | W                |
| Maximum Forward Voltage at $I_F = 200\text{mA}$       | $V_F$           | 1.5         | V                |
| Maximum Thermal Resistance Junction to Ambient Air ** | $R_{\theta JA}$ | 130         | K/W              |
| Junction Temperature                                  | $T_J$           | -55 to +175 | $^\circ\text{C}$ |
| Storage Temperature Range                             | $T_S$           | -55 to +175 | $^\circ\text{C}$ |

\*  $T_L$  = Lead temperature at 3/8" (9.5mm) from body

\*\* Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.

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| Type No.   | Nominal Zener Voltage |             | Maximum Zener Impedance |                |             | Maximum Reverse Leakage Current |       | Maximum DC Zener Current |
|------------|-----------------------|-------------|-------------------------|----------------|-------------|---------------------------------|-------|--------------------------|
|            | VZ@IZI<br>(V)         | IZI<br>(mA) | ZZI@IZI<br>(Ω)          | ZZK@IZK<br>(Ω) | IZK<br>(mA) | IR @ VR<br>(μA)                 | (V)   |                          |
| Axial Lead |                       |             |                         |                |             |                                 |       | IZM<br>(mA)              |
| 1N5913     | 3.3                   | 113.6       | 10                      | 500            | 1.0         | 100                             | 1.0   | 454                      |
| 1N5914     | 3.6                   | 101.2       | 9.0                     | 500            | 1.0         | 75                              | 1.0   | 416                      |
| 1N5915     | 3.9                   | 96.1        | 7.5                     | 500            | 1.0         | 25                              | 1.0   | 384                      |
| 1N5916     | 4.3                   | 87.2        | 6.0                     | 500            | 1.0         | 5.0                             | 1.0   | 348                      |
| 1N5917     | 4.7                   | 79.8        | 5.0                     | 500            | 1.0         | 5.0                             | 1.5   | 319                      |
| 1N5918     | 5.1                   | 73.5        | 4.0                     | 350            | 1.0         | 5.0                             | 2.0   | 294                      |
| 1N5919     | 5.6                   | 66.9        | 2.0                     | 250            | 1.0         | 5.0                             | 3.0   | 267                      |
| 1N5920     | 6.2                   | 60.5        | 2.0                     | 200            | 1.0         | 5.0                             | 4.0   | 241                      |
| 1N5921     | 6.8                   | 55.1        | 2.5                     | 200            | 1.0         | 5.0                             | 5.2   | 220                      |
| 1N5922     | 7.5                   | 50.0        | 3.0                     | 400            | 0.5         | 5.0                             | 6.0   | 200                      |
| 1N5923     | 8.2                   | 45.7        | 3.5                     | 400            | 0.5         | 5.0                             | 6.5   | 182                      |
| 1N5924     | 9.1                   | 41.2        | 4.0                     | 500            | 0.5         | 5.0                             | 7.0   | 164                      |
| 1N5925     | 10                    | 37.5        | 4.5                     | 500            | 0.25        | 5.0                             | 8.0   | 150                      |
| 1N5926     | 11                    | 34.1        | 5.5                     | 550            | 0.25        | 1.0                             | 8.4   | 136                      |
| 1N5927     | 12                    | 31.2        | 6.5                     | 550            | 0.25        | 1.0                             | 9.1   | 125                      |
| 1N5928     | 13                    | 28.8        | 7.0                     | 550            | 0.25        | 1.0                             | 9.9   | 115                      |
| 1N5929     | 15                    | 25.0        | 9.0                     | 600            | 0.25        | 1.0                             | 11.4  | 100                      |
| 1N5930     | 16                    | 23.4        | 10                      | 600            | 0.25        | 1.0                             | 12.2  | 93                       |
| 1N5931     | 18                    | 20.8        | 12                      | 650            | 0.25        | 1.0                             | 13.7  | 83                       |
| 1N5932     | 20                    | 18.7        | 14                      | 650            | 0.25        | 1.0                             | 15.2  | 75                       |
| 1N5933     | 22                    | 17.0        | 17.5                    | 650            | 0.25        | 1.0                             | 16.7  | 68                       |
| 1N5934     | 24                    | 15.6        | 19                      | 700            | 0.25        | 1.0                             | 18.2  | 62                       |
| 1N5935     | 27                    | 13.9        | 23                      | 700            | 0.25        | 1.0                             | 20.6  | 55                       |
| 1N5936     | 30                    | 12.5        | 28                      | 750            | 0.25        | 1.0                             | 22.8  | 50                       |
| 1N5937     | 33                    | 11.4        | 33                      | 800            | 0.25        | 1.0                             | 25.1  | 45                       |
| 1N5938     | 36                    | 10.4        | 38                      | 850            | 0.25        | 1.0                             | 27.4  | 41                       |
| 1N5939     | 39                    | 9.6         | 45                      | 900            | 0.25        | 1.0                             | 29.7  | 38                       |
| 1N5940     | 43                    | 8.7         | 53                      | 950            | 0.25        | 1.0                             | 32.7  | 34                       |
| 1N5941     | 47                    | 8.0         | 67                      | 1000           | 0.25        | 1.0                             | 35.8  | 31                       |
| 1N5942     | 51                    | 7.3         | 70                      | 1100           | 0.25        | 1.0                             | 38.8  | 29                       |
| 1N5943     | 56                    | 6.7         | 86                      | 1300           | 0.25        | 1.0                             | 42.6  | 26                       |
| 1N5944     | 62                    | 6.0         | 100                     | 1500           | 0.25        | 1.0                             | 47.1  | 24                       |
| 1N5945     | 68                    | 5.5         | 120                     | 1700           | 0.25        | 1.0                             | 51.2  | 22                       |
| 1N5946     | 75                    | 5.0         | 140                     | 2000           | 0.25        | 1.0                             | 56    | 20                       |
| 1N5947     | 82                    | 4.6         | 160                     | 2500           | 0.25        | 1.0                             | 62.2  | 18                       |
| 1N5948     | 91                    | 4.1         | 200                     | 3000           | 0.25        | 1.0                             | 69.2  | 16                       |
| 1N5949     | 100                   | 3.7         | 250                     | 3100           | 0.25        | 1.0                             | 76    | 15                       |
| 1N5950     | 110                   | 3.4         | 300                     | 4000           | 0.25        | 1.0                             | 83.6  | 13                       |
| 1N5951     | 120                   | 3.1         | 380                     | 4500           | 0.25        | 1.0                             | 91.2  | 12                       |
| 1N5952     | 130                   | 2.9         | 450                     | 5000           | 0.25        | 1.0                             | 96.8  | 11                       |
| 1N5953     | 150                   | 2.5         | 600                     | 6000           | 0.25        | 1.0                             | 114   | 10                       |
| 1N5954     | 160                   | 2.3         | 700                     | 6500           | 0.25        | 1.0                             | 121.6 | 9.0                      |
| 1N5955     | 180                   | 2.1         | 900                     | 7000           | 0.25        | 1.0                             | 136.8 | 8.0                      |
| 1N5956     | 200                   | 1.9         | 1200                    | 8000           | 0.25        | 1.0                             | 152   | 7.0                      |

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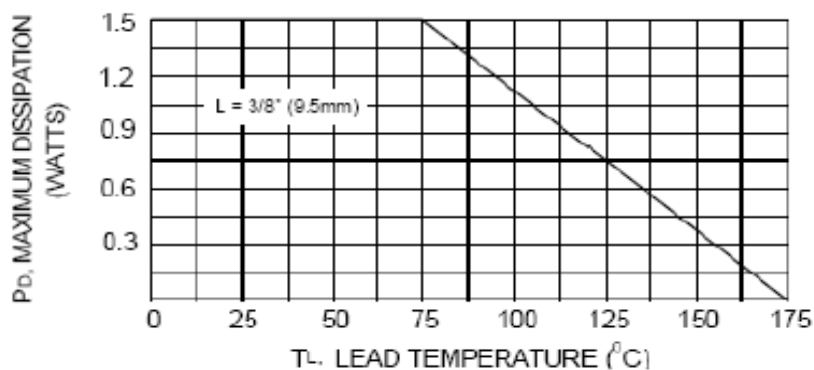


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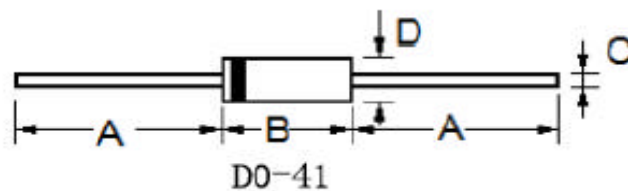
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Fig.1 POWER TEMPERATURE DERATING CURVE



## DO-41P PACKAGE DIMENSION



| Dim | Millimeters |      | Inches |       |
|-----|-------------|------|--------|-------|
|     | Min         | Max  | Min    | Max   |
| A   | 25.4        | ---  | 1.000  | ---   |
| B   | 4.20        | 5.20 | 0.165  | 0.205 |
| C   | 0.70        | 0.90 | 0.028  | 0.034 |
| D   | 2.00        | 2.70 | 0.080  | 0.107 |

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## Disclaimer

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