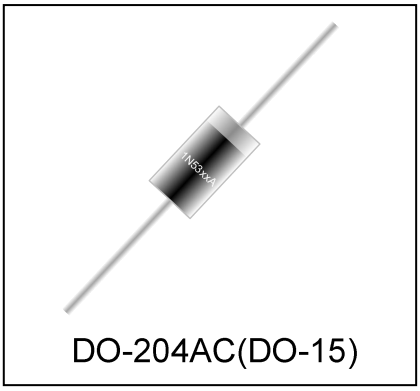
WAYON

# WZ1N53xxAD15

## Axial Zener Diodes

## Features

- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- Glass passivated chip
- RoHS compliant




DO-204AC(DO-15)

## Mechanical Characteristics

- JEDEC DO-204AC molded plastic
- Mounting position: any
- Polarity: Color band denotes cathode end

## Maximum Ratings and Electrical characteristics

Ratings at 25 ambient temperature unless otherwise specified.

| Parameter | Symbols | Value | Unit |
|---|---|---|---|
| DC Power dissipation at TL = 75 °C(1) | $P_D$ | 5.0 | W |
| Maximum forward voltage at if=1.0A | $V_F$ | 1.2 | V |
| Junction temperature range | $T_J$ , $T_{STG}$ | -55 to +150 | ℃ |
| Storage temperature range | $T_J$ , $T_{STG}$ | -55 to +150 | ℃ |

Note:

(1) TL=Lead temperature at 3/8" (9.5mm)from body.

| Part Number | Nominal Zener Voltage @$I_T$ | | | $I_{ZT}$(mA) | Maximum Zener Impedance | | | Maximum Reverse Leakage Current | | Maximum DC Zener Current |
|---|---|---|---|---|---|---|---|---|---|---|
| | $V_{Z\ AVE.}$(V) | $V_{Z\ MIN.}$(V) | $V_{Z\ MAX.}$(V) | | $Z_{ZT\ MAX.}$(Ω) @$I_{ZT}$ | $Z_{ZK\ MAX.}$(Ω) @$I_{ZK}$ | $I_{ZK}$(mA) | $I_R$(uA) @$V_R$ | $V_R$(V) | $I_{ZM}$(mA) |
| WZ1N5333AD15 | 3.3 | 3.14 | 3.47 | 380 | 3.0 | 400 | 1.00 | 300 | 1.0 | 1437 |
| WZ1N5334AD15 | 3.6 | 3.42 | 3.78 | 350 | 2.5 | 500 | 1.00 | 150 | 1.0 | 1317 |
| WZ1N5335AD15 | 3.9 | 3.71 | 4.10 | 320 | 2.0 | 500 | 1.00 | 50 | 1.0 | 1216 |
| WZ1N5336AD15 | 4.3 | 4.09 | 4.52 | 290 | 2.0 | 500 | 1.00 | 10 | 1.0 | 1103 |
| WZ1N5337AD15 | 4.7 | 4.47 | 4.94 | 260 | 2.0 | 450 | 1.00 | 5 | 1.0 | 1009 |
| WZ1N5338AD15 | 5.1 | 4.85 | 5.36 | 240 | 1.5 | 400 | 1.00 | 1.0 | 1.0 | 930 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WZ1N5339AD15 | 5.6 | 5.32 | 5.88 | 220 | 1.0 | 400 | 1.00 | 1.0 | 2.0 | 856 |
| WZ1N5340AD15 | 6.0 | 5.70 | 6.30 | 200 | 1.0 | 300 | 1.00 | 1.0 | 3.0 | 790 |
| WZ1N5341AD15 | 6.2 | 5.89 | 6.51 | 200 | 1.0 | 200 | 1.00 | 1.0 | 3.0 | 765 |
| WZ1N5342AD15 | 6.8 | 6.46 | 7.14 | 175 | 1.0 | 200 | 1.00 | 10.0 | 5.2 | 700 |
| WZ1N5343AD15 | 7.5 | 7.13 | 7.88 | 175 | 1.5 | 200 | 1.00 | 10.0 | 5.7 | 630 |
| WZ1N5344AD15 | 8.2 | 7.79 | 8.61 | 150 | 1.5 | 200 | 1.00 | 10.0 | 6.2 | 580 |
| WZ1N5345AD15 | 8.7 | 8.27 | 9.14 | 150 | 2.0 | 200 | 1.00 | 10.0 | 6.6 | 545 |
| WZ1N5346AD15 | 9.1 | 8.65 | 9.56 | 150 | 2.0 | 150 | 1.00 | 7.5 | 6.9 | 520 |
| WZ1N5347AD15 | 10.0 | 9.50 | 10.50 | 125 | 2.0 | 125 | 1.00 | 5 | 7.6 | 475 |
| WZ1N5348AD15 | 11.0 | 10.45 | 11.55 | 125 | 2.5 | 125 | 1.00 | 5 | 8.4 | 430 |
| WZ1N5349AD15 | 12.0 | 11.40 | 12.60 | 100 | 2.5 | 125 | 1.00 | 2 | 9.1 | 395 |
| WZ1N5350AD15 | 13.0 | 12.35 | 13.65 | 100 | 2.5 | 100 | 1.00 | 1 | 9.9 | 365 |
| WZ1N5351AD15 | 14.0 | 13.30 | 14.70 | 100 | 2.5 | 75 | 1.00 | 1 | 10.6 | 340 |
| WZ1N5352AD15 | 15.0 | 14.25 | 15.75 | 75 | 2.5 | 75 | 1.00 | 1 | 11.5 | 315 |
| WZ1N5353AD15 | 16.0 | 15.20 | 16.80 | 75 | 2.5 | 75 | 1.00 | 1 | 12.2 | 295 |
| WZ1N5354AD15 | 17.0 | 16.15 | 17.85 | 70 | 2.5 | 75 | 1.00 | 0.5 | 12.9 | 280 |
| WZ1N5355AD15 | 18.0 | 17.10 | 18.90 | 65 | 2.5 | 75 | 1.00 | 0.5 | 13.7 | 265 |
| WZ1N5356AD15 | 19.0 | 18.05 | 19.95 | 65 | 3.0 | 75 | 1.00 | 0.5 | 14.4 | 250 |
| WZ1N5357AD15 | 20.0 | 19.00 | 21.00 | 65 | 3.0 | 75 | 1.00 | 0.5 | 15.2 | 237 |
| WZ1N5358AD15 | 22.0 | 20.90 | 23.10 | 50 | 3.5 | 75 | 1.00 | 0.5 | 16.7 | 216 |
| WZ1N5359AD15 | 24.0 | 22.80 | 25.20 | 50 | 3.5 | 100 | 1.00 | 0.5 | 18.2 | 198 |
| WZ1N5360AD15 | 25.0 | 23.75 | 26.25 | 50 | 4.0 | 110 | 1.00 | 0.5 | 19.0 | 190 |
| WZ1N5361AD15 | 27.0 | 25.65 | 28.35 | 50 | 5.0 | 120 | 1.00 | 0.5 | 20.6 | 176 |
| WZ1N5362AD15 | 28.0 | 26.60 | 29.40 | 50 | 6.0 | 130 | 1.00 | 0.5 | 21.2 | 170 |
| WZ1N5363AD15 | 30.0 | 28.50 | 31.50 | 40 | 8.0 | 140 | 1.00 | 0.5 | 22.8 | 158 |
| WZ1N5364AD15 | 33.0 | 31.35 | 34.65 | 40 | 10.0 | 150 | 1.00 | 0.5 | 25.1 | 144 |
| WZ1N5365AD15 | 36.0 | 34.20 | 37.80 | 30 | 11.0 | 160 | 1.00 | 0.5 | 27.4 | 132 |
| WZ1N5366AD15 | 39.0 | 37.05 | 40.95 | 30 | 14.0 | 170 | 1.00 | 0.5 | 29.7 | 122 |
| WZ1N5367AD15 | 43.0 | 40.85 | 45.15 | 30 | 20.0 | 190 | 1.00 | 0.5 | 32.7 | 110 |
| WZ1N5368AD15 | 47.0 | 44.65 | 49.35 | 25 | 25.0 | 210 | 1.00 | 0.5 | 35.8 | 100 |
| WZ1N5369AD15 | 51.0 | 48.45 | 53.55 | 25 | 27.0 | 230 | 1.00 | 0.5 | 38.8 | 93.0 |
| WZ1N5370AD15 | 56.0 | 53.20 | 58.80 | 20 | 35.0 | 280 | 1.00 | 0.5 | 42.6 | 86.0 |
| WZ1N5371AD15 | 60.0 | 57.00 | 63.00 | 20 | 40.0 | 350 | 1.00 | 0.5 | 45.5 | 79.0 |
| WZ1N5372AD15 | 62.0 | 58.90 | 65.10 | 20 | 42.0 | 400 | 1.00 | 0.5 | 47.1 | 76.0 |
| WZ1N5373AD15 | 68.0 | 64.60 | 71.40 | 20 | 44.0 | 500 | 1.00 | 0.5 | 51.7 | 70.0 |
| WZ1N5374AD15 | 75.0 | 71.25 | 78.75 | 20 | 45.0 | 620 | 1.00 | 0.5 | 56.0 | 63.0 |
| WZ1N5375AD15 | 82.0 | 77.90 | 86.10 | 15 | 65.0 | 720 | 1.00 | 0.5 | 62.2 | 58.0 |
| WZ1N5376AD15 | 87.0 | 82.65 | 91.35 | 15 | 75.0 | 760 | 1.00 | 0.5 | 66.0 | 54.5 |
| WZ1N5377AD15 | 91.0 | 86.45 | 95.55 | 15 | 75.0 | 760 | 1.00 | 0.5 | 69.2 | 52.5 |
| WZ1N5378AD15 | 100.0 | 95.00 | 105.0 | 12 | 90.0 | 800 | 1.00 | 0.5 | 76.0 | 47.5 |
| WZ1N5379AD15 | 110.0 | 104.5 | 115.5 | 12 | 125.0 | 1000 | 1.00 | 0.5 | 83.6 | 43.0 |
| WZ1N5380AD15 | 120.0 | 114.0 | 126.0 | 10 | 170.0 | 1150 | 1.00 | 0.5 | 91.2 | 39.5 |
| WZ1N5381AD15 | 130.0 | 123.5 | 136.5 | 10 | 190.0 | 1250 | 1.00 | 0.5 | 98.8 | 36.6 |
| WZ1N5382AD15 | 140.0 | 133.0 | 147.0 | 8 | 230.0 | 1500 | 1.00 | 0.5 | 106 | 34.0 |
| WZ1N5383AD15 | 150.0 | 142.5 | 157.5 | 8 | 330.0 | 1500 | 1.00 | 0.5 | 114 | 31.6 |
| WZ1N5384AD15 | 160.0 | 152.0 | 168.0 | 8 | 350.0 | 1650 | 1.00 | 0.5 | 122 | 29.4 |
| WZ1N5385AD15 | 170.0 | 161.5 | 178.5 | 8 | 380.0 | 1750 | 1.00 | 0.5 | 129 | 28.0 |
| WZ1N5386AD15 | 180.0 | 171.0 | 189.0 | 5 | 430.0 | 1750 | 1.00 | 0.5 | 137 | 26.4 |
| WZ1N5387AD15 | 190.0 | 180.5 | 199.5 | 5 | 450.0 | 1850 | 1.00 | 0.5 | 144 | 25.0 |
| WZ1N5388AD15 | 200.0 | 190.0 | 210.0 | 5 | 480.0 | 1850 | 1.00 | 0.5 | 152 | 23.6 |

## Electrical Characteristics Curves

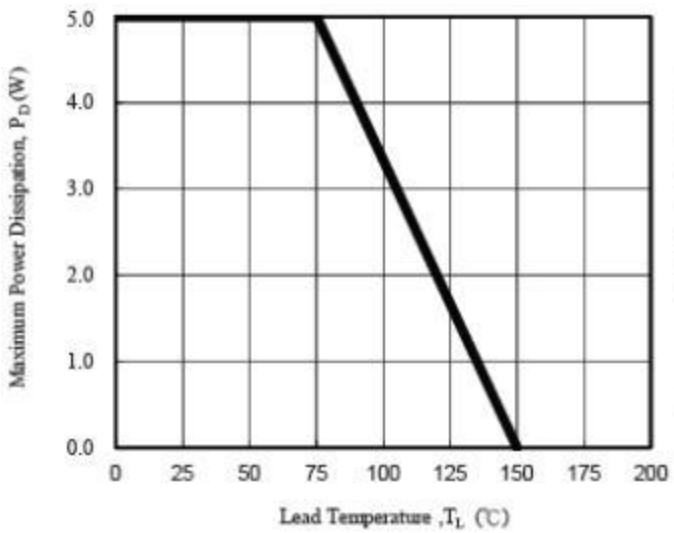



Fig. 1 - Power Temperature Derating Curve

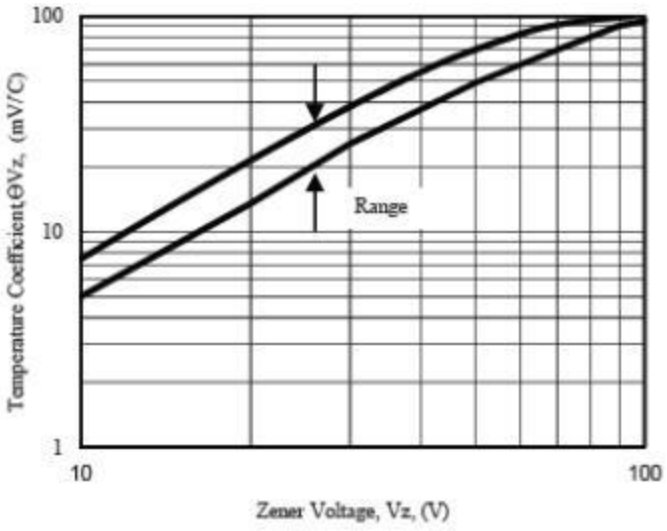



Fig. 2 - Temperature Coefficients v.s. Zener Voltage

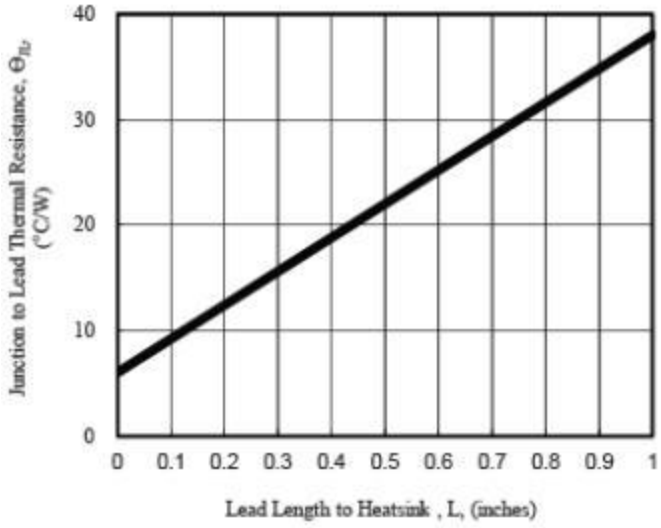



Fig. 3 - Typical Thermal Resistance v.s. Lead Length

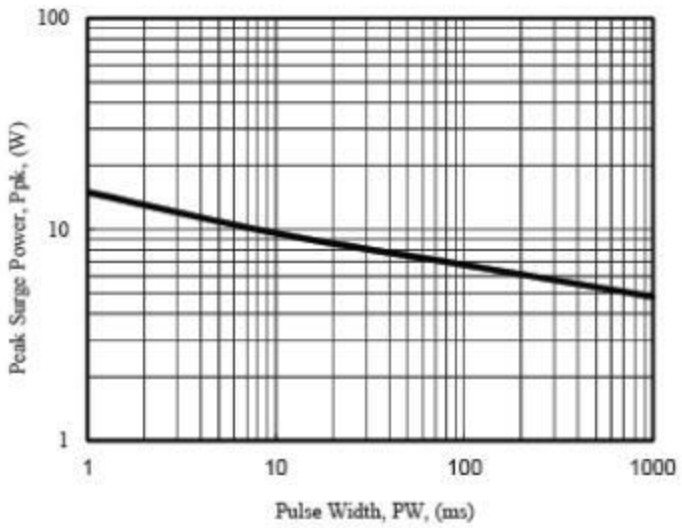
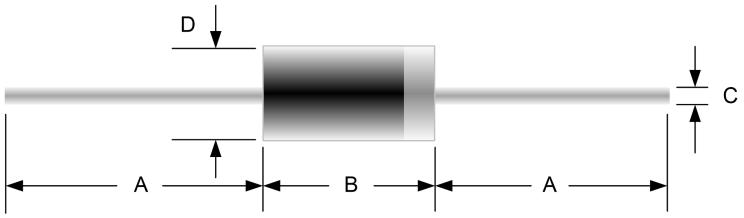



Fig. 4 - Maximum Surge Power

## Product Dimensions

| Ref.（mm） | Millimeters | |
|---|---|---|
| | Min. | Max. |
| A | 25.40 | - |
| B | 5.80 | 7.60 |
| C | 0.70 | 0.90 |
| D | 2.60 | 3.60 |




DO-204AC(DO-15)

## Marking Code

| Part Number | WZ1N5333AD15 | WZ1N5334AD15 | WZ1N5335AD15 | WZ1N5336AD15 | WZ1N5337AD15 |
|---|---|---|---|---|---|
| Marking Code | 1N5333A | 1N5334A | 1N5335A | 1N5336A | 1N5337A |
| Part Number | WZ1N5338AD15 | WZ1N5339AD15 | WZ1N5340AD15 | WZ1N5341AD15 | WZ1N5342AD15 |
| Marking Code | 1N5338A | 1N5339A | 1N5340A | 1N5341A | 1N5342A |
| Part Number | WZ1N5343AD15 | WZ1N5344AD15 | WZ1N5345AD15 | WZ1N5346AD15 | WZ1N5347AD15 |
| Marking Code | 1N5343A | 1N5344A | 1N5345A | 1N5346A | 1N5347A |
| Part Number | WZ1N5348AD15 | WZ1N5349AD15 | WZ1N5350AD15 | WZ1N5351AD15 | WZ1N5352AD15 |
| Marking Code | 1N5348A | 1N5349A | 1N5350A | 1N5351A | 1N5352A |
| Part Number | WZ1N5353AD15 | WZ1N5354AD15 | WZ1N5355AD15 | WZ1N5356AD15 | WZ1N5357AD15 |
| Marking Code | 1N5353A | 1N5354A | 1N5355A | 1N5356A | 1N5357A |
| Part Number | WZ1N5358AD15 | WZ1N5359AD15 | WZ1N5360AD15 | WZ1N5361AD15 | WZ1N5362AD15 |
| Marking Code | 1N5358A | 1N5359A | 1N5360A | 1N5361A | 1N5362A |
| Part Number | WZ1N5363AD15 | WZ1N5364AD15 | WZ1N5365AD15 | WZ1N5366AD15 | WZ1N5367AD15 |
| Marking Code | 1N5363A | 1N5364A | 1N5365A | 1N5366A | 1N5367A |
| Part Number | WZ1N5368AD15 | WZ1N5369AD15 | WZ1N5370AD15 | WZ1N5371AD15 | WZ1N5372AD15 |
| Marking Code | 1N5368A | 1N5369A | 1N5370A | 1N5371A | 1N5372A |
| Part Number | WZ1N5373AD15 | WZ1N5374AD15 | WZ1N5375AD15 | WZ1N5376AD15 | WZ1N5377AD15 |
| Marking Code | 1N5373A | 1N5374A | 1N5375A | 1N5376A | 1N5377A |

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| | | | | | |
|---|---|---|---|---|---|
| Part Number | WZ1N5378AD15 | WZ1N5379AD15 | WZ1N5380AD15 | WZ1N5381AD15 | WZ1N5382AD15 |
| Marking Code | 1N5378A | 1N5379A | 1N5380A | 1N5381A | 1N5382A |
| Part Number | WZ1N5383AD15 | WZ1N5384AD15 | WZ1N5385AD15 | WZ1N5386AD15 | WZ1N5387AD15 |
| Marking Code | 1N5383A | 1N5384A | 1N5385A | 1N5386A | 1N5387A |
| Part Number | WZ1N5388AD15 | / | / | / | / |
| Marking Code | 1N5388A | / | / | / | / |

## Package Information

| Package Type | Description | Quantity（pcs） |
|---|---|---|
| DO-204AC | Tape & Box | 2000 |

## Contact Information

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*Specifications are subject to change without notice.*
*The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.*
*Users should verify actual device performance in their specific applications.*