

ZY3.6 ~ ZY200

V_Z : 3.6 - 200 Volts
P_D : 2 Watts

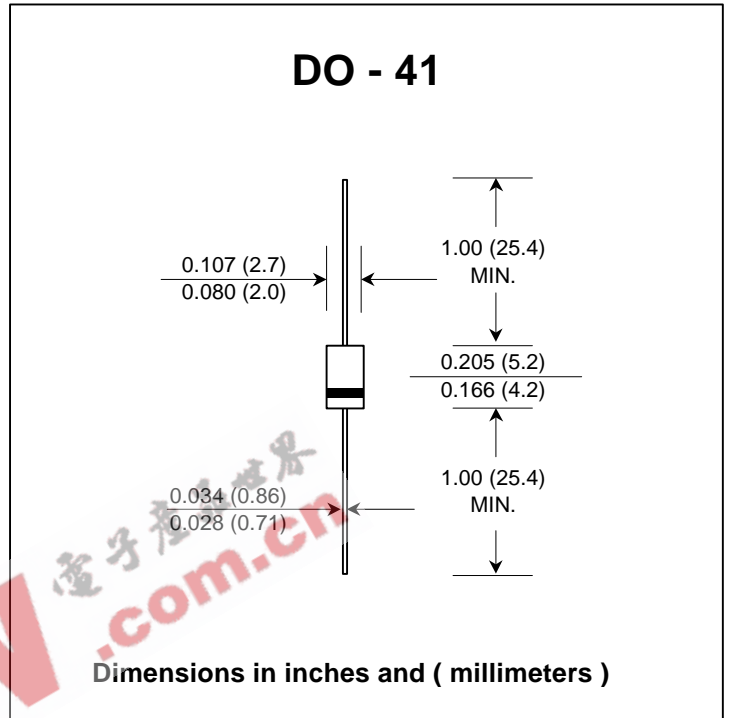
FEATURES :

- * Silicon power zener diode
- * High reliability
- * Low leakage current
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.339 gram

SILICON ZENER DIODES



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

| Rating | Symbol | Value | Unit |
|--|------------------|--------------------|------|
| DC Power Dissipation | P _{tot} | 2.0 ⁽¹⁾ | W |
| Thermal Resistance Junction to Ambient Air | R _{θJA} | 60 ⁽¹⁾ | °C/W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature Range | T _s | - 55 to + 150 | °C |

Note : 1) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

ELECTRICAL CHARACTERISTICS ($T_j = 25\text{ }^\circ\text{C}$ unless otherwise specified)

| Type No. | Zener Voltage ⁽²⁾ at I_{ZT} V_Z (V) | | Dynamic resistance at I_{ZT} max. r_{Zj} (W) | Temp. coeff. of Zener Voltage at I_{ZT} α_{VZ} ($10^{-4}/\text{K}$) | Test Current I_{ZT} (mA) | Maximum Reverse at $I_R = 1\text{ mA}$ V_R (V) | Admissible Zener Current ⁽¹⁾ at $T_a = 25\text{ }^\circ\text{C}$ I_Z (mA) |
|----------|--|------|---|---|----------------------------------|---|---|
| | min. | max. | | | | | |
| ZY3.6 | 3.4 | 3.8 | 7 | -7...+2 | 100 | - | 440 |
| ZY3.9 | 3.7 | 4.1 | 7 | -7...+2 | 100 | - | 410 |
| ZY4.3 | 4.0 | 4.6 | 7 | -7...+3 | 100 | - | 360 |
| ZY4.7 | 4.4 | 5.0 | 7 | -7...+4 | 100 | - | 330 |
| ZY5.1 | 4.8 | 5.4 | 5 | -6...+5 | 100 | - | 300 |
| ZY5.6 | 5.2 | 6.0 | 2 | -3...+5 | 100 | >1.5 | 275 |
| ZY6.2 | 5.8 | 6.6 | 2 | -1...+6 | 100 | >1.5 | 245 |
| ZY6.8 | 6.4 | 7.2 | 1 | 0...+7 | 100 | >2 | 220 |
| ZY7.5 | 7.0 | 7.9 | 1 | 0...+7 | 100 | >2 | 200 |
| ZY8.2 | 7.7 | 8.7 | 1 | +3...+8 | 100 | >3.5 | 180 |
| ZY9.1 | 8.5 | 9.6 | 4 | +3...+8 | 50 | >7.4 | 165 |
| ZY10 | 9.4 | 10.6 | 4 | +5...+9 | 50 | >8.2 | 145 |
| ZY11 | 10.4 | 11.6 | 7 | +5...+10 | 50 | >9.2 | 135 |
| ZY12 | 11.4 | 12.7 | 7 | +5...+10 | 50 | >10 | 120 |
| ZY13 | 12.4 | 14.1 | 10 | +5...+10 | 50 | >10.7 | 110 |
| ZY15 | 13.8 | 15.8 | 10 | +5...+10 | 50 | >12 | 98 |
| ZY16 | 15.3 | 17.1 | 15 | +6...+11 | 25 | >13.3 | 90 |
| ZY18 | 16.8 | 19.1 | 15 | +6...+11 | 25 | >14.7 | 80 |
| ZY20 | 18.8 | 21.2 | 15 | +6...+11 | 25 | >16.5 | 72 |
| ZY22 | 20.8 | 23.3 | 15 | +6...+11 | 25 | >18.3 | 66 |
| ZY24 | 22.8 | 25.6 | 15 | +6...+11 | 25 | >20.1 | 60 |
| ZY27 | 25.1 | 28.9 | 15 | +6...+11 | 25 | >22.5 | 53 |
| ZY30 | 28 | 32 | 15 | +6...+11 | 25 | >25.1 | 48 |
| ZY33 | 31 | 35 | 15 | +6...+11 | 25 | >27.8 | 44 |
| ZY36 | 34 | 38 | 40 | +6...+11 | 10 | >30.2 | 40 |
| ZY39 | 37 | 41 | 40 | +6...+11 | 10 | >32.9 | 37 |
| ZY43 | 40 | 46 | 45 | +7...+12 | 10 | >35.6 | 33 |
| ZY47 | 44 | 50 | 45 | +7...+12 | 10 | >39.2 | 30 |
| ZY51 | 48 | 54 | 60 | +7...+12 | 10 | >42.8 | 27 |
| ZY56 | 52 | 60 | 60 | +7...+12 | 10 | >47.3 | 25 |
| ZY62 | 58 | 66 | 80 | +8...+13 | 10 | >51.7 | 21 |
| ZY68 | 64 | 72 | 80 | +8...+13 | 10 | >57.1 | 20 |
| ZY75 | 70 | 79 | 100 | +8...+13 | 10 | >63.2 | 18 |
| ZY82 | 77 | 88 | 100 | +8...+13 | 10 | >68.6 | 16 |
| ZY91 | 85 | 96 | 200 | +9...+13 | 5 | >75.7 | 15 |
| ZY100 | 94 | 106 | 200 | +9...+13 | 5 | >83.7 | 13 |
| ZY110 | 104 | 116 | 250 | +9...+13 | 5 | >92.6 | 12 |
| ZY120 | 114 | 127 | 250 | +9...+13 | 5 | >101.6 | 11 |
| ZY130 | 124 | 141 | 300 | +9...+13 | 5 | >110.5 | 10 |
| ZY150 | 138 | 156 | 300 | +9...+13 | 5 | >123 | 9 |
| ZY160 | 153 | 171 | 350 | +9...+13 | 5 | >136 | 8.5 |
| ZY180 | 168 | 191 | 350 | +9...+13 | 5 | >149 | 8 |
| ZY200 | 168 | 212 | 350 | +9...+13 | 5 | >167 | 7.5 |

Notes : 1) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

 2) Tested with pulses $t_p = 5\text{ ms}$