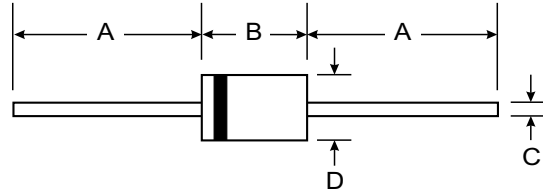


### Features

- Planar Die Construction
- 1.3W Power Dissipation
- Zener Voltages Available from 100V - 180V
- Hermetic Glass Package for High Reliability



### Mechanical Data

- Case: DO-41, Glass
- Leads: Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode
- Weight: 0.3 grams (approx)
- Mounting Position: Any

| DO-41                |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| B                    | 4.1  | 5.2  |
| C                    | 0.71 | 0.86 |
| D                    | 2.0  | 2.7  |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristics                                             | Symbol          | Value       | Unit               |
|-------------------------------------------------------------|-----------------|-------------|--------------------|
| Zener Current see Table below                               | —               | —           | —                  |
| Maximum Power Dissipation (Note 1)                          | $P_d$           | 1.3         | W                  |
| Maximum Thermal Resistance Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 130         | $^\circ\text{C/W}$ |
| Storage and Operating Temperature Range                     | $T_j, T_{STG}$  | -55 to +200 | $^\circ\text{C}$   |

### Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Type   | Zener Voltage Range (Note 2) | Test Current | Maximum Dynamic Impedance | Typ. Temperature Coefficient | Minimum Reverse Voltage       | Maximum Zener Current (Note 1) |
|--------|------------------------------|--------------|---------------------------|------------------------------|-------------------------------|--------------------------------|
|        | $V_Z @ I_{ZT}$               | $I_{ZT}$     | $Z_{ZT} @ I_{ZT}$         | @ $I_{ZT}$                   | $V_R @ I_R = 0.5 \mu\text{A}$ | $I_{ZM}$                       |
|        | Volts                        | mA           | Ohms                      | $\%/^\circ\text{C}$          | Volts                         | mA                             |
| ZPU100 | 88-110                       | 5            | 300                       | +110                         | 75                            | 11.8                           |
| ZPU120 | 107-134                      | 5            | 330                       | +110                         | 90                            | 9.7                            |
| ZPU150 | 130-165                      | 5            | 360                       | +110                         | 112                           | 7.87                           |
| ZPU180 | 160-200                      | 5            | 380                       | +110                         | 134                           | 6.5                            |

- Notes:
1. Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.
  2. Tested with pulses  $t_p = 20 \text{ ms}$ .

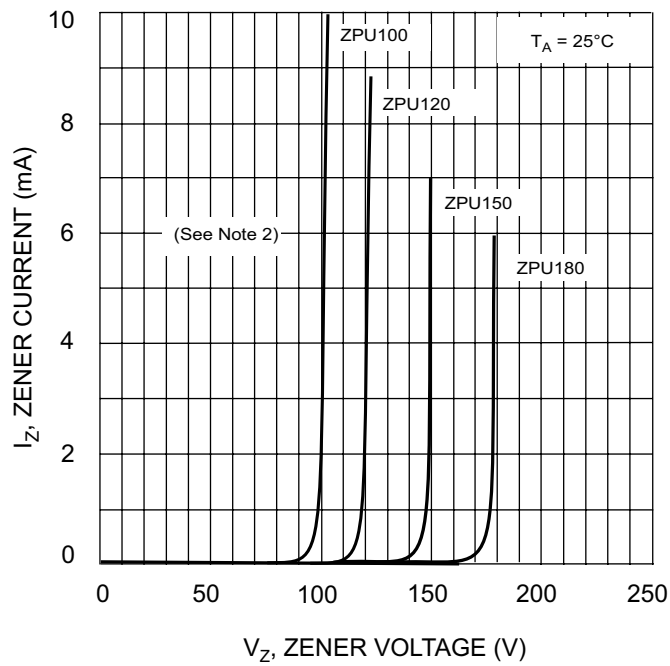


Fig. 1 Zener Breakdown Characteristics

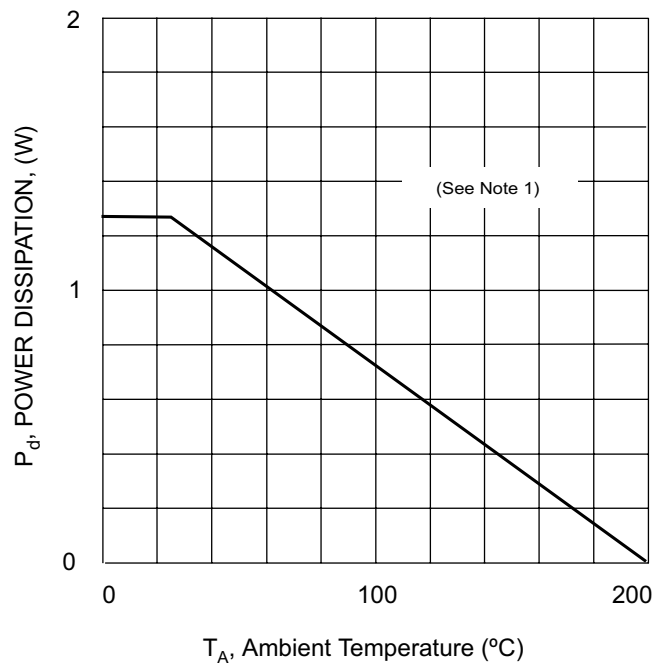


Fig. 2 Power Derating Curve

- Notes:
1. Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.
  2. Tested with pulses  $t_p = 20$  ms.