

STZ1W-UL Series

Silicon Zener Diodes

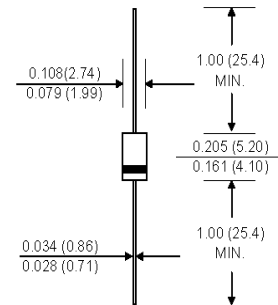
Features

- Low zener impedance
- Excellent clamping capability

Mechanical Data

- **Case:** DO-41 Molded plastic
- **Epoxy:** UL 94V-0 rate flame retardant
- **Terminals:** Axial leads, solderable per MIL-STD-202 method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any

DO - 41



Dimensions in inches and (millimeters)

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--------------------------------|-----------|---------------|------------------|
| Power Dissipation | P_D | 1 | W |
| Operating Junction Temperature | T_j | - 55 to + 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

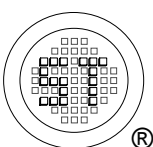
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Max. | Unit |
|---------------------------------------------|--------|------------|------|
| Forward Voltage at $I_F = 200\text{ mA}$ | V_F | 1.2 2.4 | V |
| | | | |

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Type | Marking | Zener Voltage ¹⁾ | | | | Dynamic Impedance | | Reverse Leakage Current | |
|--------------|---------|-----------------------------|----------|----------|----------------------------------|-------------------------------|---------------------|---------------------------------|-----------------|
| | | V_{Znom} (V) | V_{ZT} | | at I_{ZT} (μA) | Z_{ZT} Max. (Ω) | at I_{ZT} (mA) | I_R Max. (μA) | at V_R (V) |
| | | | Min. (V) | Max. (V) | | | | | |
| STZ1W-UL200B | ZUL200B | 200 | 190 | 210 | 50 | 9500 | 1 | 0.2 | 171 |
| STZ1W-UL350B | ZUL350B | 350 | 332.5 | 367.5 | 50 | 9800 | 1 | 0.2 | 299 |

¹⁾ Tested with pulses $t_p = 20\text{ ms}$. Suffix "A" indicates $\pm 10\%$ tolerance, Suffix "B" indicates $\pm 5\%$ tolerance.



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FIG. 1 - ZENER VOLTAGE VS. ZENER CURRENT

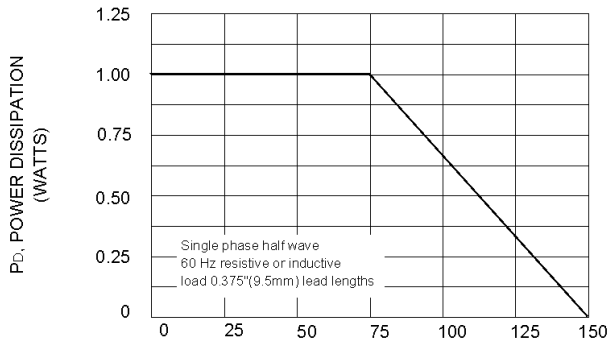


FIG. 2 - ZENER VOLTAGE VS. ZENER CURRENT

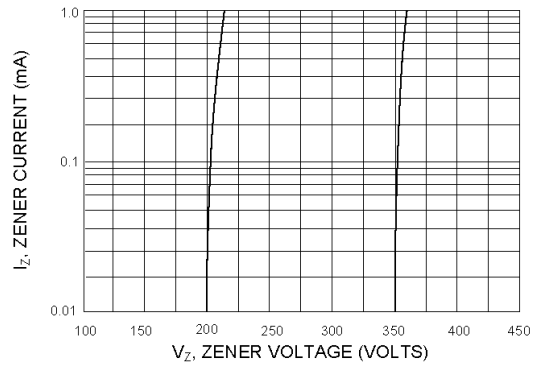


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

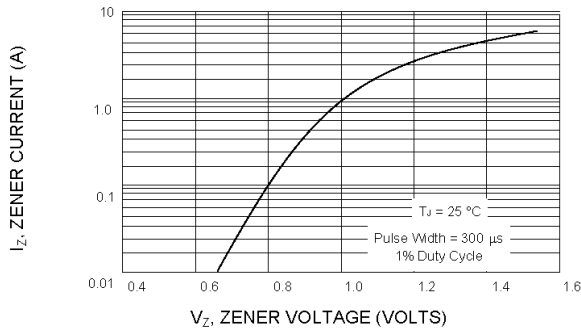


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

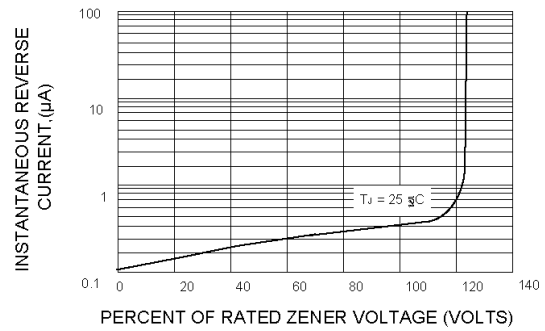
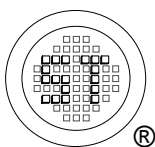
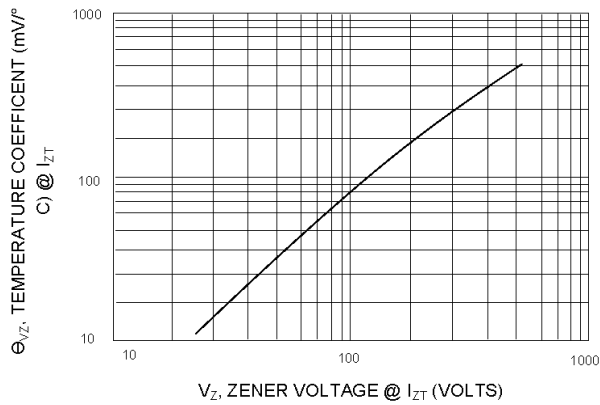


FIG. 6 - TYPICAL TEMPERATURE COEFFICIENTS



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