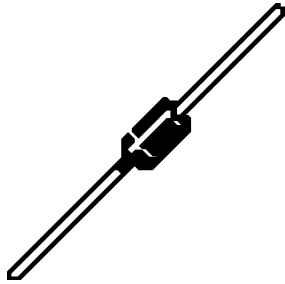


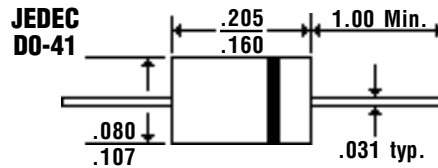
Z10-110~390

## Description



DO-41

## Mechanical Dimensions



Dimensions in inch

### Features

- ★ For surface mounted applications
- ★ 1.0 W power dissipation
- ★ Ideally suited for automated assembly processes
- ★ Excellent Clamping Capability
- ★ Low Zener Impedance

### Mechanical Data

- ★ Case: Molded plastic DO-41
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: cathode band
- ★ Mounting position: Any
- ★ Weight: 0.34 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

|                                                  | SYMBOL            | VALUE       | UNIT |
|--------------------------------------------------|-------------------|-------------|------|
| Maximum Forward Voltage Drop at IF=10mA          | V <sub>F</sub>    | 1.2         | V    |
| Power Dissipation (Note 1)                       | P <sub>D</sub>    | 1.0         | W    |
| Thermal Resistance Junction to Ambient Air       | R <sub>thJA</sub> | 300         | °C/W |
| Operating junction and Storage Temperature Range | T <sub>J</sub>    | -55 to +150 | °C   |

NOTES : (1) Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

(2) Measured on 8.3ms, single half-sine wave or equivalent square wave, duty cycle = 4 pulses per minute maximum. □



RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED

STORAGE AND OPERATING TEMPERATURE RANGE -55 TO + 150°C

| ELECTRICAL CHARACTERISTICS (TA=25°C UNLESS OTHERWISE NOTED) VF=1.2V MAX, IF = 200mA FOR ALL TYPES |                               |                                    |                 |                 |                 |                                                                    |                |                                                    |
|---------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------|-----------------|-----------------|-----------------|--------------------------------------------------------------------|----------------|----------------------------------------------------|
| TYPE                                                                                              | ZENER<br>BREAKDOWN<br>VOLTAGE | DYNAMIC IMPEDANCES<br>@<br>25°C TA |                 |                 |                 | MAXIMUM REVERSE<br>CURRENT<br>@ MEASUREMENT<br>VOLTAGE AND 25°C TA |                | MAXIMUM FORWARD<br>VOLTAGE<br>@25°C TA<br>@IF=0.2A |
|                                                                                                   | V <sub>Z</sub>                | I <sub>ZT</sub>                    | Z <sub>ZT</sub> | I <sub>ZK</sub> | Z <sub>ZK</sub> | V <sub>R</sub>                                                     | I <sub>R</sub> | V <sub>F</sub>                                     |
|                                                                                                   | V                             | mA                                 | ohms            | mA              | ohms            | V                                                                  | μA             | V                                                  |
| Z10-110                                                                                           | 110                           | 5                                  | 750             | 0.25            | 5000            | 80                                                                 | 0.5            | 1.2                                                |
| Z10-115                                                                                           | 115                           | 5                                  | 750             | 0.25            | 5000            | 85                                                                 | 0.5            | 1.2                                                |
| Z10-120                                                                                           | 120                           | 5                                  | 850             | 0.25            | 5000            | 90                                                                 | 0.5            | 1.2                                                |
| Z10-130                                                                                           | 130                           | 5                                  | 1000            | 0.25            | 5000            | 95                                                                 | 0.5            | 1.2                                                |
| Z10-140                                                                                           | 140                           | 5                                  | 1200            | 0.25            | 5000            | 105                                                                | 0.5            | 1.2                                                |
| Z10-150                                                                                           | 150                           | 5                                  | 1300            | 0.25            | 5000            | 110                                                                | 0.5            | 1.2                                                |
| Z10-160                                                                                           | 160                           | 5                                  | 1500            | 0.25            | 5000            | 120                                                                | 0.5            | 1.2                                                |
| Z10-170                                                                                           | 170                           | 5                                  | 2200            | 0.25            | 5000            | 130                                                                | 0.5            | 1.2                                                |
| Z10-180                                                                                           | 180                           | 5                                  | 2200            | 0.25            | 5000            | 140                                                                | 0.5            | 1.2                                                |
| Z10-190                                                                                           | 190                           | 5                                  | 2500            | 0.25            | 5000            | 150                                                                | 0.5            | 1.2                                                |
| Z10-200                                                                                           | 200                           | 5                                  | 2500            | 0.25            | 8000            | 165                                                                | 0.5            | 1.2                                                |
| Z10-210                                                                                           | 210                           | 5                                  | 5000            | 0.25            | 9000            | 165                                                                | 0.5            | 1.2                                                |
| Z10-220                                                                                           | 220                           | 5                                  | 5000            | 0.25            | 9000            | 170                                                                | 0.5            | 1.2                                                |
| Z10-230                                                                                           | 230                           | 5                                  | 5000            | 0.25            | 9000            | 175                                                                | 0.5            | 1.2                                                |
| Z10-240                                                                                           | 240                           | 5                                  | 5000            | 0.25            | 9000            | 180                                                                | 0.5            | 1.2                                                |
| Z10-250                                                                                           | 250                           | 5                                  | 5000            | 0.25            | 9000            | 190                                                                | 0.5            | 1.2                                                |
| Z10-260                                                                                           | 260                           | 5                                  | 5000            | 0.25            | 9000            | 195                                                                | 0.5            | 1.2                                                |
| Z10-270                                                                                           | 270                           | 5                                  | 5000            | 0.25            | 9000            | 200                                                                | 0.5            | 1.2                                                |
| Z10-280                                                                                           | 280                           | 5                                  | 5000            | 0.25            | 9000            | 210                                                                | 0.5            | 1.2                                                |
| Z10-290                                                                                           | 290                           | 5                                  | 5000            | 0.25            | 9000            | 215                                                                | 0.5            | 1.2                                                |
| Z10-300                                                                                           | 300                           | 5                                  | 5000            | 0.25            | 9000            | 220                                                                | 0.5            | 1.2                                                |
| Z10-310                                                                                           | 310                           | 5                                  | 5000            | 0.25            | 9500            | 225                                                                | 0.5            | 1.2                                                |
| Z10-320                                                                                           | 320                           | 5                                  | 5000            | 0.25            | 9500            | 233                                                                | 0.5            | 1.2                                                |
| Z10-330                                                                                           | 330                           | 5                                  | 5000            | 0.25            | 9500            | 240                                                                | 0.5            | 1.2                                                |
| <b>Z10-350</b>                                                                                    | <b>350</b>                    | <b>5</b>                           | <b>5000</b>     | <b>0.25</b>     | <b>9500</b>     | <b>268</b>                                                         | <b>0.5</b>     | <b>1.2</b>                                         |
| <b>Z10-390</b>                                                                                    | <b>390</b>                    | <b>5</b>                           | <b>5000</b>     | <b>0.25</b>     | <b>9500</b>     | <b>284</b>                                                         | <b>0.5</b>     | <b>1.2</b>                                         |

NOTE : STANDARD± 20%, SUFFIX "A" ± 10%,SUFFIX "B" ± 5%

## RATING AND CHARACTERISTIC CURVES Z1-110 THRU 390

FIG. 1 - MAXIMUM CONTINUOUS POWER DISSIPATION

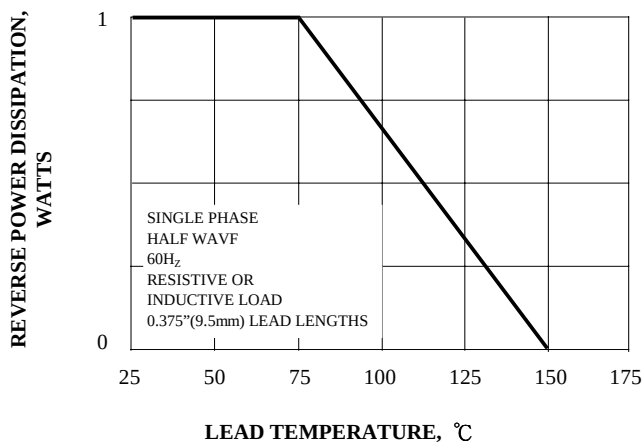


FIG. 2 - ZENER VOLTAGE VERSUS ZENER CURRENT

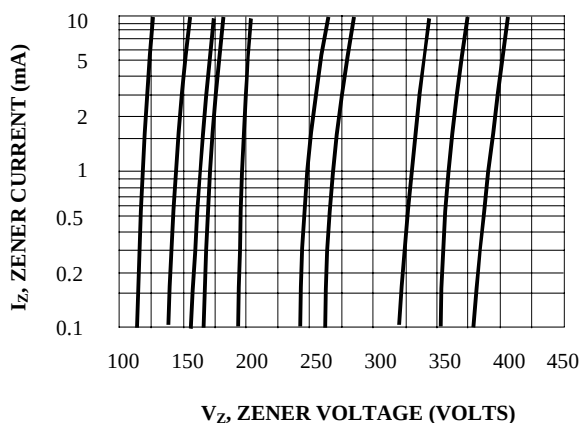


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

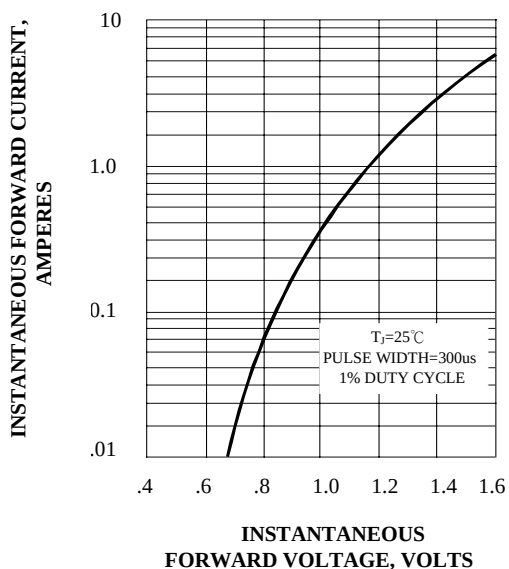


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

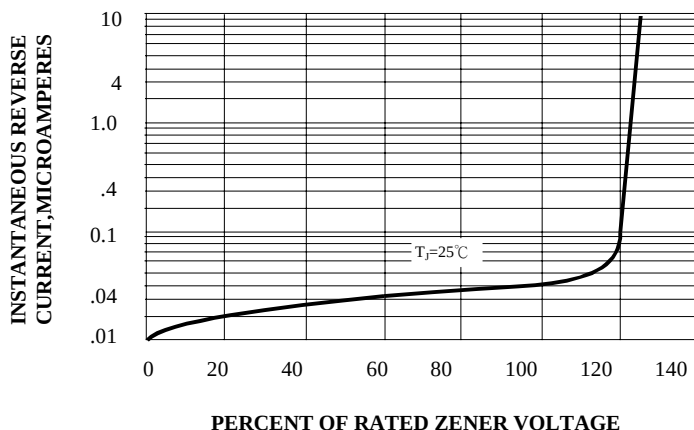


FIG. 5 - TYPICAL TEMPERATURE COEFFICIENTS

