

## 2EZ Series

$V_Z$  : 3.3 - 270 Volts

$P_D$  : 2 Watts

### FEATURES :

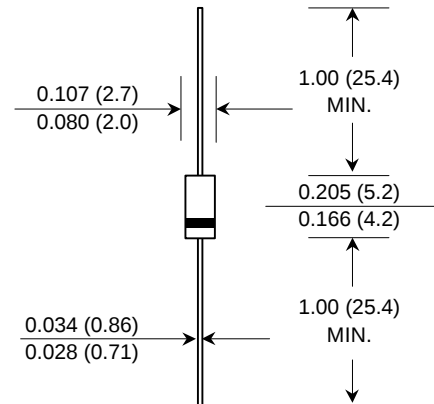
- \* Complete Voltage Range 3.3 to 270 Volts
- \* High peak reverse power dissipation
- \* High reliability
- \* Low leakage current

### 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

### DO - 41



Dimensions in inches and ( millimeters )

### MAXIMUM RATINGS

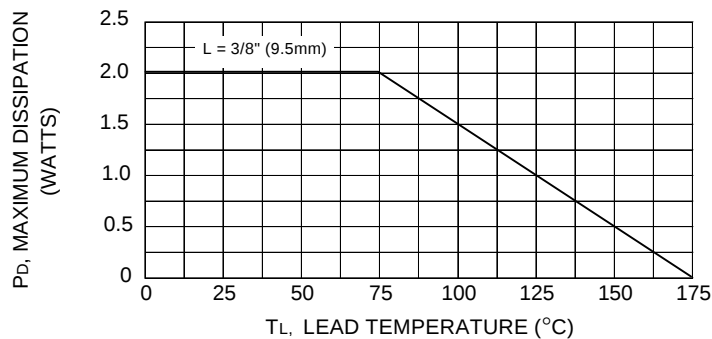
Rating at 25 °C ambient temperature unless otherwise specified

| Rating                                               | Symbol | Value         | Unit |
|------------------------------------------------------|--------|---------------|------|
| DC Power Dissipation at $T_L = 75\text{ °C}$ (Note1) | $P_D$  | 2.0           | W    |
| Maximum Forward Voltage at $I_F = 200\text{ mA}$     | $V_F$  | 1.2           | V    |
| Junction Temperature Range                           | $T_J$  | - 55 to + 175 | °C   |
| Storage Temperature Range                            | $T_S$  | - 55 to + 175 | °C   |

#### Note :

(1)  $T_L$  = Lead temperature at 3/8 " (9.5mm) from body

Fig. 1 POWER TEMPERATURE DERATING CURVE



## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

| TYPE     | Nominal Zener Voltage            |                 | Maximum Zener Impedance           |                                   |                 | Maximum Reverse Leakage Current |       | Maximum DC Zener Current |
|----------|----------------------------------|-----------------|-----------------------------------|-----------------------------------|-----------------|---------------------------------|-------|--------------------------|
|          | V <sub>Z</sub> @ I <sub>ZT</sub> | I <sub>ZT</sub> | Z <sub>ZT</sub> @ I <sub>ZT</sub> | Z <sub>ZK</sub> @ I <sub>ZK</sub> | I <sub>ZK</sub> | I <sub>R</sub> @ V <sub>R</sub> |       | I <sub>ZM</sub>          |
|          | (V)                              | (mA)            | (Ω)                               | (Ω)                               | (mA)            | (μA)                            | (V)   | (mA)                     |
| 2EZ3.3D5 | 3.3                              | 150             | 5.0                               | 400                               | 1.0             | 80                              | 1.0   | 545                      |
| 2EZ3.6D5 | 3.6                              | 139             | 5.0                               | 400                               | 1.0             | 80                              | 1.0   | 504                      |
| 2EZ3.9D5 | 3.9                              | 128             | 5.0                               | 400                               | 1.0             | 50                              | 1.0   | 468                      |
| 2EZ4.3D5 | 4.3                              | 116             | 4.5                               | 400                               | 1.0             | 50                              | 1.0   | 434                      |
| 2EZ4.7D5 | 4.7                              | 106             | 4.5                               | 550                               | 1.0             | 50                              | 1.0   | 386                      |
| 2EZ5.1D5 | 5.1                              | 98.0            | 3.5                               | 600                               | 1.0             | 50                              | 1.0   | 356                      |
| 2EZ5.6D5 | 5.6                              | 89.5            | 2.5                               | 500                               | 1.0             | 50                              | 2.0   | 324                      |
| 2EZ6.2D5 | 6.2                              | 80.5            | 1.5                               | 700                               | 1.0             | 50                              | 3.0   | 292                      |
| 2EZ6.5D5 | 6.5                              | 77.0            | 1.7                               | 700                               | 1.0             | 50                              | 3.5   | 278                      |
| 2EZ6.8D5 | 6.8                              | 73.5            | 2.0                               | 700                               | 1.0             | 50                              | 4.0   | 266                      |
| 2EZ7.5D5 | 7.5                              | 66.5            | 2.0                               | 700                               | 0.5             | 50                              | 5.0   | 242                      |
| 2EZ8.2D5 | 8.2                              | 61.0            | 2.3                               | 700                               | 0.5             | 50                              | 6.0   | 220                      |
| 2EZ9.1D5 | 9.1                              | 55.0            | 2.5                               | 700                               | 0.5             | 50                              | 7.0   | 200                      |
| 2EZ10D5  | 10                               | 50.0            | 3.5                               | 700                               | 0.25            | 50                              | 7.6   | 182                      |
| 2EZ11D5  | 11                               | 45.5            | 4.0                               | 700                               | 0.25            | 50                              | 8.4   | 166                      |
| 2EZ12D5  | 12                               | 41.5            | 4.5                               | 700                               | 0.25            | 1.0                             | 9.1   | 152                      |
| 2EZ13D5  | 13                               | 38.5            | 5.0                               | 700                               | 0.25            | 0.5                             | 9.9   | 138                      |
| 2EZ14D5  | 14                               | 35.7            | 5.5                               | 700                               | 0.25            | 0.5                             | 10.6  | 130                      |
| 2EZ15D5  | 15                               | 33.4            | 7.0                               | 700                               | 0.25            | 0.5                             | 11.4  | 122                      |
| 2EZ16D5  | 16                               | 31.2            | 8.0                               | 700                               | 0.25            | 0.5                             | 12.2  | 114                      |
| 2EZ17D5  | 17                               | 29.4            | 9.0                               | 750                               | 0.25            | 0.5                             | 13.0  | 107                      |
| 2EZ18D5  | 18                               | 27.8            | 10                                | 750                               | 0.25            | 0.5                             | 13.7  | 100                      |
| 2EZ19D5  | 19                               | 26.3            | 11                                | 750                               | 0.25            | 0.5                             | 14.4  | 95                       |
| 2EZ20D5  | 20                               | 25.0            | 11                                | 750                               | 0.25            | 0.5                             | 15.2  | 90                       |
| 2EZ22D5  | 22                               | 22.8            | 12                                | 750                               | 0.25            | 0.5                             | 16.7  | 82                       |
| 2EZ24D5  | 24                               | 20.8            | 13                                | 750                               | 0.25            | 0.5                             | 18.2  | 76                       |
| 2EZ27D5  | 27                               | 18.5            | 18                                | 750                               | 0.25            | 0.5                             | 20.6  | 68                       |
| 2EZ30D5  | 30                               | 16.6            | 20                                | 1000                              | 0.25            | 0.5                             | 22.5  | 60                       |
| 2EZ33D5  | 33                               | 15.1            | 23                                | 1000                              | 0.25            | 0.5                             | 25.1  | 55                       |
| 2EZ36D5  | 36                               | 13.9            | 25                                | 1000                              | 0.25            | 0.5                             | 27.4  | 50                       |
| 2EZ39D5  | 39                               | 12.8            | 30                                | 1000                              | 0.25            | 0.5                             | 29.7  | 47                       |
| 2EZ43D5  | 43                               | 11.6            | 35                                | 1500                              | 0.25            | 0.5                             | 32.7  | 43                       |
| 2EZ47D5  | 47                               | 10.6            | 40                                | 1500                              | 0.25            | 0.5                             | 35.8  | 39                       |
| 2EZ51D5  | 51                               | 9.8             | 48                                | 1500                              | 0.25            | 0.5                             | 38.8  | 36                       |
| 2EZ56D5  | 56                               | 9.0             | 55                                | 2000                              | 0.25            | 0.5                             | 42.6  | 32                       |
| 2EZ62D5  | 62                               | 8.1             | 60                                | 2000                              | 0.25            | 0.5                             | 47.1  | 29                       |
| 2EZ68D5  | 68                               | 7.4             | 75                                | 2000                              | 0.25            | 0.5                             | 51.7  | 27                       |
| 2EZ75D5  | 75                               | 6.7             | 90                                | 2000                              | 0.25            | 0.5                             | 56.0  | 24                       |
| 2EZ82D5  | 82                               | 6.1             | 100                               | 3000                              | 0.25            | 0.5                             | 62.2  | 22                       |
| 2EZ91D5  | 91                               | 5.5             | 125                               | 3000                              | 0.25            | 0.5                             | 69.2  | 20                       |
| 2EZ100D5 | 100                              | 5.0             | 175                               | 3000                              | 0.25            | 0.5                             | 76.0  | 18                       |
| 2EZ110D5 | 110                              | 4.5             | 250                               | 4000                              | 0.25            | 0.5                             | 83.6  | 17                       |
| 2EZ120D5 | 120                              | 4.2             | 325                               | 4500                              | 0.25            | 0.5                             | 91.2  | 15                       |
| 2EZ130D5 | 130                              | 3.8             | 400                               | 5000                              | 0.25            | 0.5                             | 98.8  | 14                       |
| 2EZ140D5 | 140                              | 3.6             | 500                               | 5500                              | 0.25            | 0.5                             | 106.4 | 13                       |
| 2EZ150D5 | 150                              | 3.3             | 575                               | 6000                              | 0.25            | 0.5                             | 114.0 | 12                       |
| 2EZ160D5 | 160                              | 3.1             | 650                               | 6500                              | 0.25            | 0.5                             | 121.6 | 11                       |
| 2EZ170D5 | 170                              | 2.9             | 675                               | 7000                              | 0.25            | 0.5                             | 130.4 | 11                       |
| 2EZ180D5 | 180                              | 2.8             | 725                               | 7000                              | 0.25            | 0.5                             | 136.8 | 10                       |
| 2EZ190D5 | 190                              | 2.6             | 825                               | 8000                              | 0.25            | 0.5                             | 144.8 | 10                       |
| 2EZ200D5 | 200                              | 2.5             | 900                               | 8000                              | 0.25            | 0.5                             | 152.0 | 9.0                      |
| 2EZ220D5 | 220                              | 2.0             | 2000                              | 8500                              | 0.25            | 0.5                             | 167.0 | 8.0                      |
| 2EZ270D5 | 270                              | 1.6             | 2200                              | 8500                              | 0.25            | 0.5                             | 205.0 | 6.7                      |

Notes : (1) Suffix " 5 " indicates  $\pm 5\%$  tolerance, suffix " 10 " indicates  $\pm 10\%$  tolerance.  
(2) " EZ " will be omitted in marking on the diode