FAIRCHILD
SEMICONDUCTOR®

# Zeners
# 1N4370A - 1N4372A
# 1N746A - 1N759A

## Absolute Maximum Ratings *

$T_A$ = 25°C unless otherwise noted

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $P_D$ | Power Dissipation<br>@ TL ≤ 75°C, Lead Length = 3/8” | 500 | mW |
| | Derate above 75°C | 4.0 | mW/°C |
| $T_J$, $T_{STG}$ | Operating and Storage Temperature Range | -65 to +200 | °C |

* These ratings are limiting values above which the serviceability of the diode may be impaired.

**Tolerance = 5%**



**DO-35 Glass case**
COLOR BAND DENOTES CATHODE

## Electrical Characteristics

$T_A$=25°C unless otherwise noted

| Device | $V_Z$ (V) @ $I_Z$ = 20mA (Note 1) | | | $Z_Z$ (Ω) @ $I_Z$ = 20mA | $I_{ZM}$ (mA) (Note 2) | $I_R$ (μA) @ $V_R$ = 1V | |
|---|---|---|---|---|---|---|---|
| | Min. | Typ. | Max. | | | Ta = 25°C | Ta = 125°C |
| 1N4370A | 2.28 | 2.4 | 2.52 | 30 | 150 | 100 | 200 |
| 1N4371A | 2.57 | 2.7 | 2.84 | 30 | 135 | 75 | 150 |
| 1N4372A | 2.85 | 3.0 | 3.15 | 29 | 120 | 50 | 100 |
| 1N746A | 3.14 | 3.3 | 3.47 | 28 | 110 | 10 | 30 |
| 1N747A | 3.42 | 3.6 | 3.78 | 24 | 100 | 10 | 30 |
| 1N748A | 3.71 | 3.9 | 4.10 | 23 | 95 | 10 | 30 |
| 1N749A | 4.09 | 4.3 | 4.52 | 22 | 85 | 2 | 30 |
| 1N750A | 4.47 | 4.7 | 4.94 | 19 | 75 | 2 | 30 |
| 1N751A | 4.85 | 5.1 | 5.36 | 17 | 70 | 1 | 20 |
| 1N752A | 5.32 | 5.6 | 5.88 | 11 | 65 | 1 | 20 |
| 1N753A | 5.89 | 6.2 | 6.51 | 7 | 60 | 0.1 | 20 |
| 1N754A | 6.46 | 6.8 | 7.14 | 5 | 55 | 0.1 | 20 |
| 1N755A | 7.13 | 7.5 | 7.88 | 6 | 50 | 0.1 | 20 |
| 1N756A | 7.79 | 8.2 | 8.61 | 8 | 45 | 0.1 | 20 |
| 1N757A | 8.65 | 9.1 | 9.56 | 10 | 40 | 0.1 | 20 |
| 1N758A | 9.50 | 10 | 10.5 | 17 | 35 | 0.1 | 20 |
| 1N759A | 11.40 | 12 | 12.6 | 30 | 30 | 0.1 | 20 |

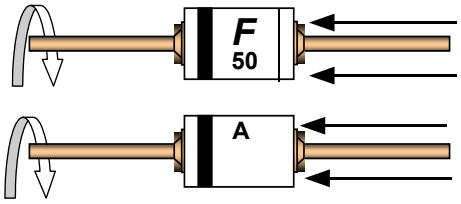
**$V_F$ Forward Voltage = 1.5V Max @ $I_F$ = 200mA**

**Notes:**
1. Zener Voltage ($V_Z$)
   The zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature ($T_L$) at 30°C ± 1°C and 3/8” lead length.
2. Maximum Zener Current Ratings ($I_{ZM}$)
   The maximum current handling capability on a worst case basis is limited by the actual zener voltage at the operation point and the power derating curve.

## Top Mark Information

| Device | Line 1 | Line 2 | Line 3 |
|---|---|---|---|
| 1N4370A | LOGO | 37 | 0A |
| 1N4371A | LOGO | 37 | 1A |
| 1N4372A | LOGO | 37 | 2A |
| 1N746A | LOGO | 46 | A |
| 1N747A | LOGO | 47 | A |
| 1N748A | LOGO | 48 | A |
| 1N749A | LOGO | 49 | A |
| 1N750A | LOGO | 50 | A |
| 1N751A | LOGO | 51 | A |
| 1N752A | LOGO | 52 | A |
| 1N753A | LOGO | 53 | A |
| 1N754A | LOGO | 54 | A |
| 1N755A | LOGO | 55 | A |
| 1N756A | LOGO | 56 | A |
| 1N757A | LOGO | 57 | A |
| 1N758A | LOGO | 58 | A |
| 1N759A | LOGO | 59 | A |

## Top Mark Information (Continued)




1st line: F - Fairchild Logo

2nd line: Device Name - 4th to 5th characters of the device name.
or 5th to 6th characters for BZXyy series

3rd line: Device Name - 6th to 7th characters of the device name.
or Voltage rating for BZXyy series

### General Requirements:

1.0 Cathode Band

2.0 First Line: F - Fairchild Logo

3.0 Second Line: Device name - For 1Nxx series: 4th to 5th characters of the device name.
For BZxx series: 5th to 6th characters of the device name.

4.0 Third Line: Device name - For 1Nxx series: 6th to 7th characters of the device name.
For BZXyy series: Voltage rating

5.0 Maximum no. of marking lines: 3

6.0 Maximum no. of digits per line: 2

7.0 FSC logo must be 20 % taller than the alphanumeric marking and should occupy the 2 characters of the specified line.

8.0 Marking Font: Arial (Except FSC Logo)

9.0 First character of each marking line must be aligned vertically.

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|---|---|---|
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Rev. I39

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