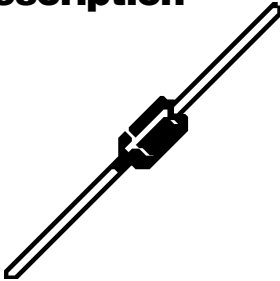
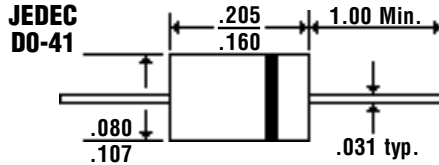


# 2 Watt ZENER DIODES (3.3V to 200V)

## Description



## Mechanical Dimensions



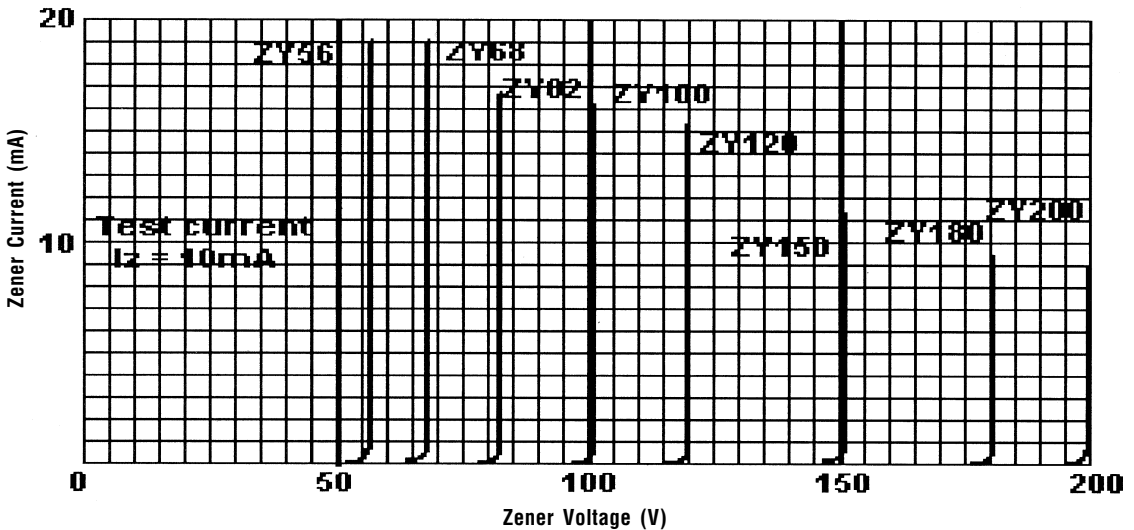
**BZY47C3V3...C200**

## Features

- PRO ELECTRON REGISTRATION
- WIDE VOLTAGE RANGE...3.3 to 200V
- HIGH SURGE CAPABILITY...50 W @ 10mA
- MEETS UL SPECIFICATION 94V-0

| Maximum Ratings  | BZY47C3V3...C200 | Units                       |
|--|------------------|-----------------------------|
| DC Power Dissipation with $T_A = 70^\circ\text{C}$ ... $P_D$ | 2.0              | W                           |
| Junction to Ambient Thermal Resistance... $R_{\theta JA}$    | 52.5             | $^\circ\text{C} / \text{W}$ |
| Lead Temperature... $T_L$                                    | 300              | $^\circ\text{C}$            |
| Operating & Storage Temperature Range... $T_J, T_{STRG}$     | -65 to 175       | $^\circ\text{C}$            |

## Breakdown Characteristics



## 2 Watt ZENER DIODES (3.3V to 200V)

**BZY47C3V3...C200**

### Electrical Characteristics @ 25°C.

| Part #     | Zener Voltage Range | Test Current $I_{ZT}$ | Max. Zener Impedance $Z_{ZT} @ I_{ZT} (\Omega)$ | Typical Temp. Coeff. (%/°C) | Min. Reverse Voltage @ $I_R = 1\mu A$ | Max. Regulator Current @ 45°C $I_{ZR}$ |
|------------|---------------------|-----------------------|---|-----------------------------|---------------------------------------|--|
| BZY47-C3V3 | 3.1 - 3.5           | 100                   | 3.8   | - 0.06                      | 0.5                                   | 435                                    |
| BZY47-C3V6 | 3.4 - 3.8           | 100                   | 3.8   | - 0.06                      | 0.5                                   | 385                                    |
| BZY47-C3V9 | 3.7 - 4.1           | 100                   | 3.8   | - 0.06                      | 0.5                                   | 345                                    |
| BZY47-C4V3 | 4.0 - 4.6           | 100                   | 3.8   | +/- 0.03                    | 1.0                                   | 320                                    |
| BZY47-C4V7 | 4.4 - 5.0           | 100                   | 3.8   | +/- 0.03                    | 1.0                                   | 310                                    |
| BZY47-C5V1 | 4.8 - 5.4           | 100                   | 2   | +/- 0.035                   | 1.0                                   | 280                                    |
| BZY47-C5V6 | 5.2 - 6.0           | 100                   | 1   | +/- 0.035                   | 2.0                                   | 255                                    |
| BZY47-C6V2 | 5.8 - 6.6           | 100                   | 1   | +/- 0.035                   | 2.0                                   | 235                                    |
| BZY47-C6V8 | 6.4 - 7.2           | 100                   | 1   | +/- 0.035                   | 2.0                                   | 220                                    |
| BZY47-C7V5 | 7.0 - 7.9           | 100                   | 2   | +/- 0.035                   | 2.0                                   | 200                                    |
| BZY47-C8V2 | 7.7 - 8.7           | 50                    | 2   | +/- 0.055                   | 3.5                                   | 180                                    |
| BZY47-C9V1 | 8.5 - 9.6           | 50                    | 4   | +/- 0.065                   | 3.5                                   | 165                                    |
| BZY47-C10  | 9.4 - 10.6          | 50                    | 4   | +/- 0.070                   | 5.0                                   | 145                                    |
| BZY47-C11  | 10.4 - 11.6         | 50                    | 7   | +/- 0.075                   | 5.0                                   | 135                                    |
| BZY47-C12  | 11.4 - 12.7         | 50                    | 7   | +/- 0.075                   | 7.0                                   | 120                                    |
| BZY47-C13  | 12.4 - 14.1         | 50                    | 10  | +/- 0.075                   | 7.0                                   | 110                                    |
| BZY47-C15  | 13.8 - 15.8         | 50                    | 10  | +/- 0.075                   | 10                                    | 98                                     |
| BZY47-C16  | 15.3 - 17.1         | 25                    | 15  | +/- 0.085                   | 10                                    | 90                                     |
| BZY47-C18  | 16.8 - 19.1         | 25                    | 15  | +/- 0.085                   | 10                                    | 80                                     |
| BZY47-C20  | 18.8 - 21.2         | 25                    | 15  | +/- 0.085                   | 10                                    | 72                                     |
| BZY47-C22  | 20.8 - 23.3         | 25                    | 15  | +/- 0.085                   | 12                                    | 66                                     |
| BZY47-C24  | 22.8 - 25.6         | 25                    | 15  | +/- 0.085                   | 12                                    | 50                                     |
| BZY47-C27  | 25.1 - 28.9         | 25                    | 15  | +/- 0.085                   | 14                                    | 53                                     |
| BZY47-C30  | 28 - 32             | 25                    | 15  | +/- 0.085                   | 14                                    | 48                                     |
| BZY47-C33  | 31 - 35             | 25                    | 15  | +/- 0.085                   | 17                                    | 44                                     |
| BZY47-C36  | 34 - 38             | 10                    | 40  | +/- 0.085                   | 17                                    | 40                                     |
| BZY47-C39  | 37 - 41             | 10                    | 40  | +/- 0.085                   | 20                                    | 37                                     |
| BZY47-C43  | 40 - 46             | 10                    | 45  | +/- 0.095                   | 20                                    | 33                                     |
| BZY47-C47  | 44 - 50             | 10                    | 45  | +/- 0.095                   | 24                                    | 30                                     |
| BZY47-C51  | 48 - 54             | 10                    | 60  | +/- 0.095                   | 24                                    | 27                                     |
| BZY47-C56  | 52 - 60             | 10                    | 60  | +/- 0.095                   | 28                                    | 25                                     |
| BZY47-C62  | 58 - 66             | 10                    | 80  | +/- 0.105                   | 28                                    | 21                                     |
| BZY47-C68  | 64 - 72             | 10                    | 80  | +/- 0.105                   | 34                                    | 20                                     |
| BZY47-C75  | 70 - 79             | 10                    | 100   | +/- 0.105                   | 34                                    | 18                                     |
| BZY47-C82  | 77 - 88             | 10                    | 100   | +/- 0.105                   | 41                                    | 16                                     |
| BZY47-C91  | 85 - 96             | 5                     | 200   | +/- 0.11                    | 41                                    | 15                                     |
| BZY47-C100 | 94 - 106            | 5                     | 200   | +/- 0.11                    | 50                                    | 13                                     |
| BZY47-C110 | 104 - 116           | 5                     | 250   | +/- 0.11                    | 50                                    | 12                                     |
| BZY47-C120 | 114 - 127           | 5                     | 250   | +/- 0.11                    | 60                                    | 11                                     |
| BZY47-C130 | 124 - 141           | 5                     | 300   | +/- 0.11                    | 60                                    | 10                                     |
| BZY47-C150 | 138 - 156           | 5                     | 300   | +/- 0.11                    | 75                                    | 9                                      |
| BZY47-C160 | 153 - 171           | 5                     | 350   | +/- 0.11                    | 75                                    | 8.5                                    |
| BZY47-C180 | 168 - 191           | 5                     | 350   | +/- 0.11                    | 90                                    | 8.0                                    |
| BZY47-C200 | 188 - 212           | 5                     | 350   | +/- 0.11                    | 90                                    | 7.5                                    |