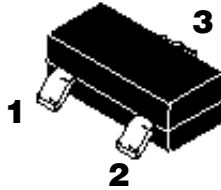


350 mW ZENER DIODES (2.7V to 51V)

BZX84C2V7...51 Series

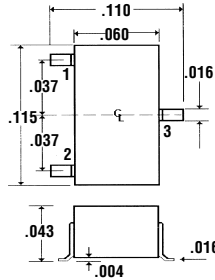
Description



2: NC



Mechanical Dimensions



Features

■ 5% VOLTAGE TOLERANCE

■ WIDE VOLTAGE RANGE

■ MEETS UL SPECIFICATION 94V-0

| Maximum Ratings | BZX84C2V7 . . . 51 Series | Units |
|--|---------------------------|-----------------------------|
| DC Power Dissipation ... P_D | 350 | mW |
| Forward Voltage @ $I_F = 10\text{mA}$... V_F | 0.9 | V |
| Thermal Resistance, Junction to Ambient... $R_{\theta JA}$ | 420 | $^{\circ}\text{C}/\text{W}$ |
| Operating & Storage Temperature Range... T_J, T_{STRG} | -65 to 150 | $^{\circ}\text{C}$ |

NOTES: 1. V_z measured @ I_{zT} using pulse test. Pulse width = 5.0ms. Voltage tolerance is 5%.

Electrical Characteristics @ 25°C.

| Part # | Nominal Zener Voltage | Test Current I_{zT} (mA) | Max. Zener Impedance | | | Max. Reverse Leakage Current @ V_R | | Typ. Temp. Coefficient TC (%/°C) | Marking Code |
|-----------|-----------------------|----------------------------|----------------------------------|----------------------------------|-------------|--------------------------------------|----------------------|----------------------------------|--------------|
| | | | Z_{zT} @ I_{zT} (Ω) | Z_{zK} @ I_{zK} (Ω) | I_{zK} mA | I_R (μ A) | V_R (V) | | |
| BXZ84C2V7 | 2.7 | 5.0 | 100 | 600 | 1.0 | 20 | 1.0 | -0.065 | Z12 |
| BXZ84C3V0 | 3.0 | 5.0 | 100 | 600 | 1.0 | 10 | 1.0 | -0.060 | Z13 |
| BXZ84C3V3 | 3.3 | 5.0 | 95 | 600 | 1.0 | 5.0 | 1.0 | -0.055 | Z14 |
| BXZ84C3V6 | 3.6 | 5.0 | 95 | 600 | 1.0 | 5.0 | 1.0 | -0.055 | Z15 |
| BXZ84C3V9 | 3.9 | 5.0 | 90 | 600 | 1.0 | 3.0 | 1.0 | -0.050 | Z16 |
| BXZ84C4V3 | 4.3 | 5.0 | 90 | 600 | 1.0 | 3.0 | 1.0 | -0.035 | Z17 |
| BXZ84C4V7 | 4.7 | 5.0 | 80 | 500 | 1.0 | 4.0 | 2.0 | -0.015 | Z1 |
| BXZ84C5V1 | 5.1 | 5.0 | 60 | 480 | 1.0 | 2.0 | 2.0 | +0.005 | Z2 |
| BXZ84C5V6 | 5.6 | 5.0 | 40 | 400 | 1.0 | 1.0 | 2.0 | +0.020 | Z3 |
| BXZ84C6V2 | 6.2 | 5.0 | 10 | 150 | 1.0 | 3.0 | 4.0 | +0.030 | Z4 |
| BXZ84C6V8 | 6.8 | 5.0 | 15 | 80 | 1.0 | 2.0 | 4.0 | +0.045 | Z5 |
| BXZ84C7V5 | 7.5 | 5.0 | 15 | 80 | 1.0 | 1.0 | 5.0 | +0.050 | Z6 |
| BXZ84C8V2 | 8.2 | 5.0 | 15 | 80 | 1.0 | 0.7 | 5.0 | +0.055 | Z7 |
| BXZ84C9V1 | 9.1 | 5.0 | 15 | 100 | 1.0 | 0.5 | 6.0 | +0.065 | Z8 |
| BXZ84C10 | 10 | 5.0 | 20 | 150 | 1.0 | 0.2 | 7.0 | +0.065 | Z9 |
| BXZ84C11 | 11 | 5.0 | 20 | 150 | 1.0 | 0.1 | 8.0 | +0.070 | Y1 |
| BXZ84C12 | 12 | 5.0 | 25 | 150 | 1.0 | 0.1 | 8.0 | +0.075 | Y2 |
| BXZ84C13 | 13 | 5.0 | 30 | 170 | 1.0 | 0.1 | 8.0 | +0.080 | Y3 |
| BXZ84C15 | 15 | 5.0 | 30 | 200 | 1.0 | 0.05 | 0.7V _{Znom} | +0.080 | Y4 |
| BXZ84C16 | 16 | 5.0 | 40 | 200 | 1.0 | 0.05 | 0.7V _{Znom} | +0.090 | Y5 |
| BXZ84C18 | 18 | 5.0 | 45 | 225 | 1.0 | 0.05 | 0.7V _{Znom} | +0.090 | Y6 |
| BXZ84C20 | 20 | 5.0 | 55 | 225 | 1.0 | 0.05 | 0.7V _{Znom} | +0.090 | Y7 |
| BXZ84C22 | 22 | 5.0 | 55 | 250 | 1.0 | 0.05 | 0.7V _{Znom} | +0.090 | Y8 |
| BXZ84C24 | 24 | 5.0 | 70 | 250 | 1.0 | 0.05 | 0.7V _{Znom} | +0.090 | Y9 |
| BXZ84C27 | 27 | 2.0 | 80 | 300 | 0.5 | 0.05 | 0.7V _{Znom} | +0.090 | Y10 |
| BXZ84C30 | 30 | 2.0 | 80 | 300 | 0.5 | 0.05 | 0.7V _{Znom} | +0.090 | Y11 |
| BXZ84C33 | 33 | 2.0 | 80 | 325 | 0.5 | 0.05 | 0.7V _{Znom} | +0.090 | Y12 |
| BXZ84C36 | 36 | 2.0 | 90 | 350 | 0.5 | 0.05 | 0.7V _{Znom} | +0.090 | Y13 |
| BXZ84C39 | 39 | 2.0 | 130 | 350 | 0.5 | 0.05 | 0.7V _{Znom} | +0.110 | Y14 |
| BXZ84C43 | 43 | 2.0 | 150 | 375 | 0.5 | 0.05 | 0.7V _{Znom} | +0.110 | Y15 |
| BXZ84C47 | 47 | 2.0 | 170 | 375 | 0.5 | 0.05 | 0.7V _{Znom} | +0.110 | Y16 |
| BXZ84C51 | 51 | 2.0 | 180 | 400 | 0.5 | 0.05 | 0.7V _{Znom} | +0.110 | Y17 |

Rating and characteristic curves (BZX84C2V4 THRU BZX84C75)

FIG. 1-STEADY STATE POWER DERATING

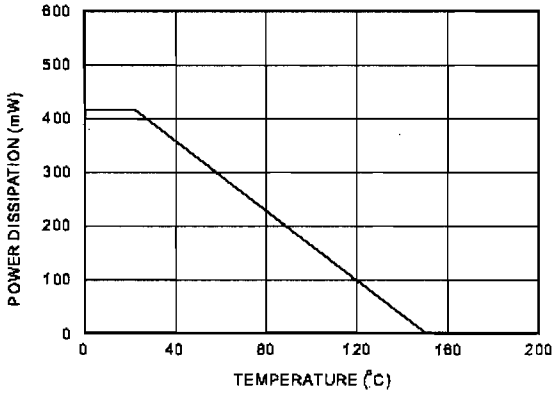


FIG. 2-TEMPERATURE COEFFICIENTS

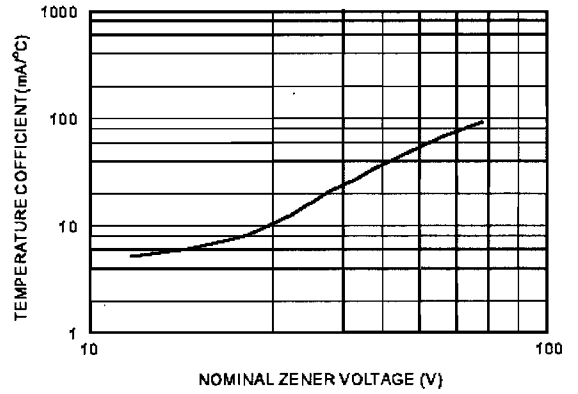


FIG. 3-TYPICAL LEAKAGE CURRENT

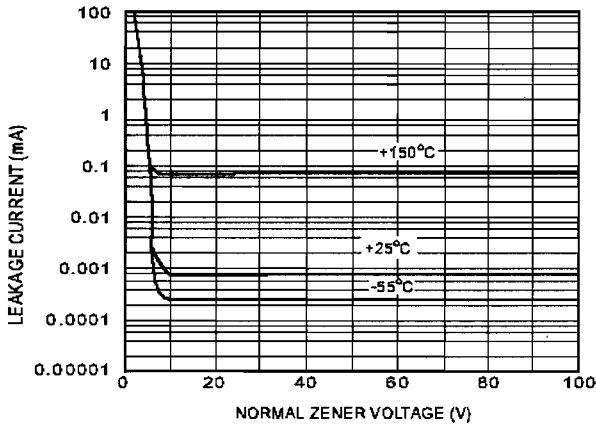


FIG. 4-TYPICAL FORWARD VOLTAGE

