# BZX84C2V4-AU SERIES

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 2.4 to 75 Volt **POWER** 410 mWatt

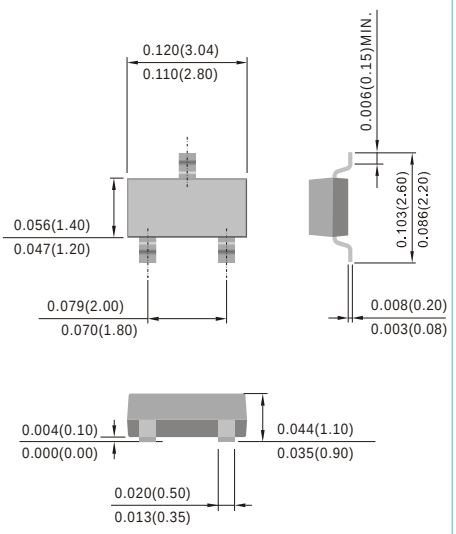
### FEATURES

- Planar Die construction
- 410mW Power Dissipation
- Zener Voltages from 2.4~75V
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)
- Acqire quality system certificate : TS16949
- AEC-Q101 qualified

### MECHANICAL DATA

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.0003 ounces, 0.0084 grams

**SOT-23** Unit : inch(mm)



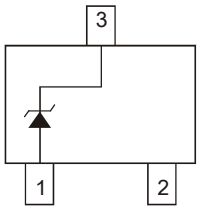

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS($T_A$=25°C unless otherwise noted)

| Parameter | Symbol | Value | Units |
|---|---|---|---|
| Maximum Power Dissipation (Notes 1) at 25°C | $P_D$ | 410 | mW |
| Typical Thermal Resistance ,Junction to Ambient (Notes 2) | $R_{\Theta JA}$ | 500 | °C/W |
| Operating Junction and StorageTemperature Range | $T_J$ | -55 to +150 | °C |

NOTES:

1. Mounted on 50mmX16mm FR-4 board.
2. Mounted on minimum pad layout (1cmX1cm FR-4 board).

SINGLE



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| Part Number | Nominal Zener Voltage | | | Max. Zener Impedance | | | | Max Reverse Leakage Current | | Marking Code |
|---|---|---|---|---|---|---|---|---|---|---|
| | $V_Z$ @ $I_{ZT}$ | | | $Z_{ZT}$ @ $I_{ZT}$ | | $Z_{ZK}$ @ $I_{ZK}$ | | $I_R$ @ $V_R$ | | |
| | Nom. V | Min. V | Max. V | Ω | mA | Ω | mA | μA | V | |
| **250 mWatts Zener Diodes** | | | | | | | | | | |
| BZX84C2V4-AU | 2.4 | 2.28 | 2.52 | 100 | 5.0 | 600 | 1.00 | 50 | 1.0 | W1 |
| BZX84C2V7-AU | 2.7 | 2.57 | 2.84 | 100 | 5.0 | 600 | 1.00 | 20 | 1.0 | W2 |
| BZX84C3-AU | 3 | 2.85 | 3.15 | 95 | 5.0 | 600 | 1.00 | 10 | 1.0 | W3 |
| BZX84C3V3-AU | 3.3 | 3.14 | 3.47 | 95 | 5.0 | 600 | 1.00 | 5.0 | 1.0 | W4 |
| BZX84C3V6-AU | 3.6 | 3.42 | 3.78 | 90 | 5.0 | 600 | 1.00 | 5.0 | 1.0 | W5 |
| BZX84C3V9-AU | 3.9 | 3.71 | 4.10 | 90 | 5.0 | 600 | 1.00 | 3.0 | 1.0 | W6 |
| BZX84C4V3-AU | 4.3 | 4.09 | 4.52 | 90 | 5.0 | 600 | 1.00 | 3.0 | 1.0 | W7 |
| BZX84C4V7-AU | 4.7 | 4.47 | 4.94 | 80 | 5.0 | 500 | 1.00 | 3.0 | 2.0 | W8 |
| BZX84C5V1-AU | 5.1 | 4.85 | 5.36 | 60 | 5.0 | 480 | 1.00 | 2.0 | 2.0 | W9 |
| BZX84C5V6-AU | 5.6 | 5.32 | 5.88 | 40 | 5.0 | 400 | 1.00 | 1.0 | 2.0 | WA |
| BZX84C6V2-AU | 6.2 | 5.89 | 6.51 | 10 | 5.0 | 150 | 1.00 | 3.0 | 4.0 | WB |
| BZX84C6V8-AU | 6.8 | 6.46 | 7.14 | 15 | 5.0 | 80 | 1.00 | 2.0 | 4.0 | WC |
| BZX84C7V5-AU | 7.5 | 7.13 | 7.88 | 15 | 5.0 | 80 | 1.00 | 1.0 | 5.0 | WD |
| BZX84C8V2-AU | 8.2 | 7.79 | 8.61 | 15 | 5.0 | 80 | 1.00 | 0.7 | 5.0 | WE |
| BZX84C8V7-AU | 8.7 | 8.27 | 9.14 | 15 | 5.0 | 100 | 1.00 | 0.7 | 5.0 | 87C |
| BZX84C9V1-AU | 9.1 | 8.65 | 9.56 | 15 | 5.0 | 100 | 1.00 | 0.5 | 6.0 | WF |
| BZX84C10-AU | 10 | 9.50 | 10.50 | 20 | 5.0 | 150 | 1.00 | 0.2 | 7.0 | WG |
| BZX84C11-AU | 11 | 10.45 | 11.55 | 20 | 5.0 | 150 | 1.00 | 0.1 | 8.0 | WH |
| BZX84C12-AU | 12 | 11.40 | 12.60 | 25 | 5.0 | 150 | 1.00 | 0.1 | 8.0 | WI |
| BZX84C13-AU | 13 | 12.35 | 13.65 | 30 | 5.0 | 170 | 1.00 | 0.1 | 8.0 | WK |
| BZX84C14-AU | 14 | 13.30 | 14.70 | 30 | 5.0 | 170 | 1.00 | 0.1 | 10.0 | WJ |
| BZX84C15-AU | 15 | 14.25 | 15.75 | 30 | 5.0 | 200 | 1.00 | 0.1 | 10.5 | WL |
| BZX84C16-AU | 16 | 15.20 | 16.80 | 40 | 5.0 | 200 | 1.00 | 0.1 | 11.2 | WM |
| BZX84C17-AU | 17 | 16.15 | 17.85 | 40 | 5.0 | 200 | 1.00 | 0.1 | 12.2 | 17C |
| BZX84C18-AU | 18 | 17.10 | 18.90 | 45 | 5.0 | 225 | 1.00 | 0.1 | 12.6 | WN |
| BZX84C20-AU | 20 | 19.00 | 21.00 | 55 | 5.0 | 225 | 1.00 | 0.1 | 14.0 | WO |
| BZX84C22-AU | 22 | 20.90 | 23.10 | 55 | 5.0 | 250 | 1.00 | 0.1 | 15.4 | WP |
| BZX84C24-AU | 24 | 22.80 | 25.20 | 70 | 5.0 | 250 | 1.00 | 0.1 | 16.8 | WR |
| BZX84C27-AU | 27 | 25.65 | 28.35 | 80 | 5.0 | 300 | 1.00 | 0.1 | 18.9 | WS |
| BZX84C28-AU | 28 | 26.60 | 29.40 | 80 | 5.0 | 300 | 1.00 | 0.1 | 20.5 | 28C |
| BZX84C30-AU | 30 | 28.50 | 31.50 | 80 | 5.0 | 300 | 1.00 | 0.1 | 21.0 | WT |
| BZX84C33-AU | 33 | 31.35 | 34.65 | 80 | 5.0 | 325 | 1.00 | 0.1 | 23.1 | WU |
| BZX84C36-AU | 36 | 34.20 | 37.80 | 90 | 5.0 | 350 | 1.00 | 0.1 | 25.2 | WW |
| BZX84C39-AU | 39 | 37.05 | 40.95 | 130 | 5.0 | 350 | 1.00 | 0.1 | 27.3 | WX |
| BZX84C43-AU | 43 | 40.85 | 45.15 | 150 | 5.0 | 375 | 1.00 | 0.1 | 30.1 | WY |
| BZX84C47-AU | 47 | 44.65 | 49.35 | 170 | 5.0 | 375 | 1.00 | 0.1 | 32.9 | WZ |
| BZX84C51-AU | 51 | 48.45 | 53.55 | 100 | 5.0 | 400 | 1.00 | 0.1 | 38.0 | XA |
| BZX84C56-AU | 56 | 53.20 | 58.80 | 135 | 2.5 | 1000 | 1.00 | 0.1 | 42.0 | X2 |
| BZX84C62-AU | 62 | 58.90 | 65.10 | 150 | 2.5 | 1000 | 1.00 | 0.1 | 46.0 | X3 |
| BZX84C68-AU | 68 | 64.60 | 71.40 | 200 | 2.5 | 1000 | 1.00 | 0.1 | 51.0 | X4 |
| BZX84C75-AU | 75 | 71.25 | 78.75 | 250 | 2.5 | 1000 | 1.00 | 0.1 | 56.0 | X5 |

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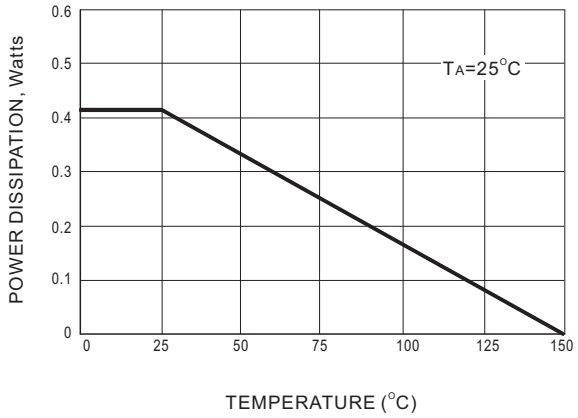



Fig.1 STEADY STATE POWER DERATING

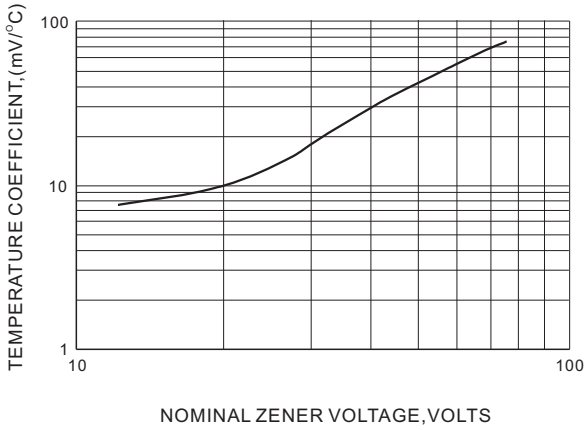



Fig.2 TEMPERATURE COEFFICENTS

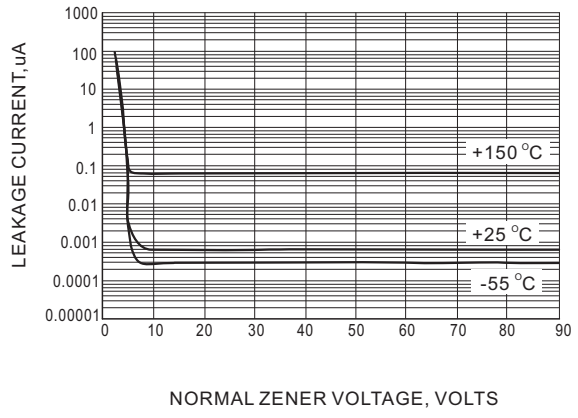



Fig.3 TYPICAL LEAKAGE CURRENT

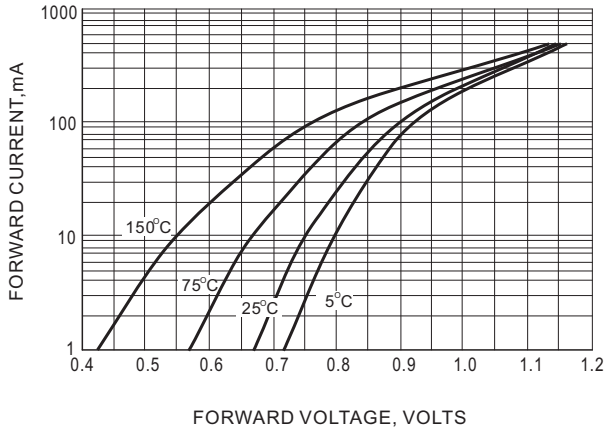
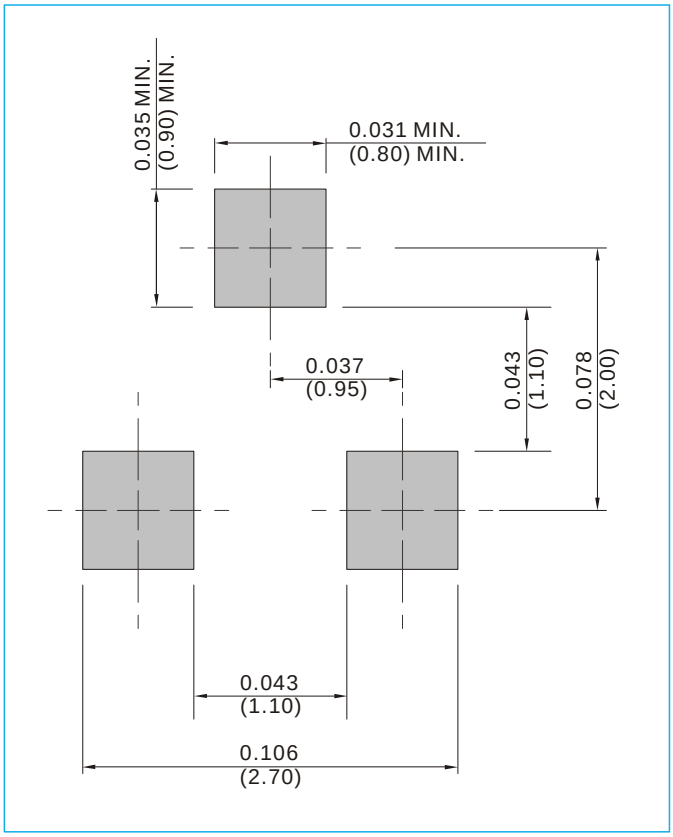



Fig.4 TYPICAL FORWARD VOLTAGE

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## MOUNTING PAD LAYOUT

SOT-23 Unit : inch(mm)




## ORDER INFORMATION

- Packing information

  T/R - 12K per 13" plastic Reel

  T/R - 3K per 7" plastic Reel

# BZX84C2V4-AU SERIES

**Part No_packing code_Version**

BZX84B2V4-AU_R1_000A1

BZX84B2V4-AU_R2_000A1

**For example :**

**RB500V-40_R2_00001**

**Part No.**

**Serial number**

**Version code means HF**

**Packing size code means 13"**

**Packing type means T/R**

| Packing Code XX | | | | Version Code XXXXX | | |
|---|---|---|---|---|---|---|
| Packing type | 1st Code | Packing size code | 2nd Code | HF or RoHS | 1st Code | 2nd~5th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |

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