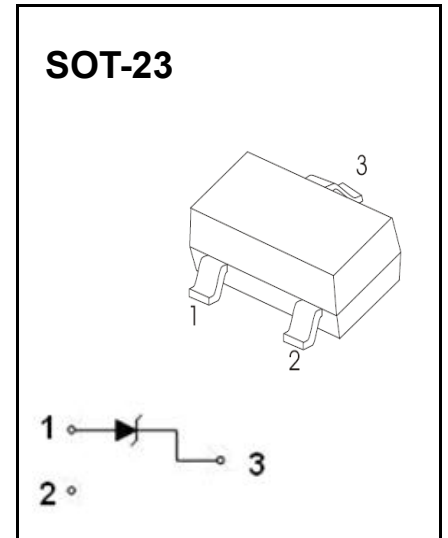


■ **Features**

- Low Zener Impedance
- Power Dissipation of 300mW
- High Stability and High Reliability

■ **Mechanical Data**

- package:SOT-23
- Flammability rating of epoxy resin: UL 94V-0
- Mounting Position: Any.



■ **ORDERING INFORMATION**

- Part Number: BZX84Cxx
- Package: SOT-23
- Quantity per reel: 3,000 pcs
- Packing: Tape & Reel
- Reel Size: 7 inches

■ **Maximum Ratings & Thermal Characteristics**(Ratings at 25°C ambient temperature unless otherwise specified.)

| Parameters | Symbol | Value | Unit |
|---|--------|----------|------|
| Power Dissipation.(Note 1) | Pd | 300 | mW |
| Forward Voltage @IF=10mA.(Note 2) | Vf | 0.9 | V |
| Storage temperature range | Ts | -65-+150 | °C |
| Thermal resistance junction to ambient air Warmewider stand Sperschicht –umgebende Luft | RthA | 417 | K/W |

- 1) Valid provided that device terminals are kept at ambient temperature.
- 2) Test with pulse, period=5ms, pulse width=300us.
- 3) 3) f=1KHz

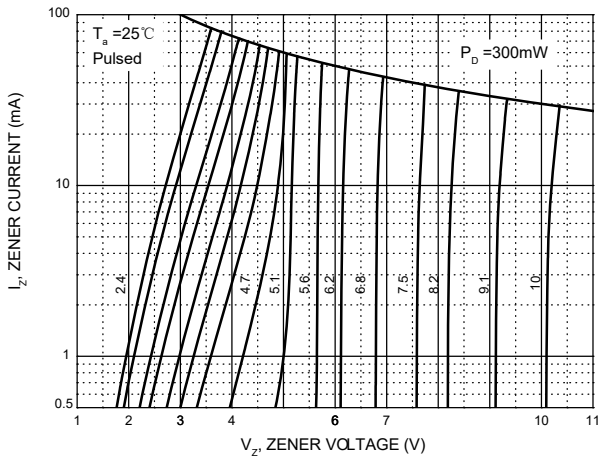
Electrical Characteristics(Ratings at 25 °C ambient temperature unless otherwise specified)

| Device | Marking | Zener Voltage Range V _z | | | Maximum Zener Impedance | | | Reverse Current I _r | | Temperature Coefficient of Zener voltage @I _{zt} =5mA mV/°C | |
|-----------|---------|---------------------------------------|-------|-----------------|-------------------------|-----------------|-----|-----------------------------------|------|---|------|
| | | Min | Max | I _{zt} | Z _{zt} | Z _{zk} | | Max | VR | Min | Max |
| | | (V) | (V) | mA | Ω | Ω | mA | μA | V | | |
| BZX84C2V4 | Z11 | 2.20 | 2.60 | 5 | 100 | 600 | 1.0 | 50.0 | 1.0 | -3.5 | 0.0 |
| BZX84C2V7 | Z12 | 2.50 | 2.90 | 5 | 100 | 600 | 1.0 | 20.0 | 1.0 | -3.5 | 0.0 |
| BZX84C3V0 | Z13 | 2.80 | 3.20 | 5 | 95 | 600 | 1.0 | 10.0 | 1.0 | -3.5 | 0.0 |
| BZX84C3V3 | Z14 | 3.10 | 3.50 | 5 | 95 | 600 | 1.0 | 5.0 | 1.0 | -3.5 | 0.0 |
| BZX84C3V6 | Z15 | 3.40 | 3.80 | 5 | 90 | 600 | 1.0 | 5.0 | 1.0 | -3.5 | 0.0 |
| BZX84C3V9 | Z16 | 3.70 | 4.10 | 5 | 90 | 600 | 1.0 | 3.0 | 1.0 | -3.5 | 0.0 |
| BZX84C4V3 | Z17 | 4.00 | 4.60 | 5 | 90 | 600 | 1.0 | 3.0 | 1.0 | -3.5 | 0.0 |
| BZX84C4V7 | Z1 | 4.40 | 5.00 | 5 | 80 | 500 | 1.0 | 3.0 | 2.0 | -3.5 | 0.2 |
| BZX84C5V1 | Z2 | 4.80 | 5.40 | 5 | 60 | 480 | 1.0 | 2.0 | 2.0 | -2.7 | 1.2 |
| BZX84C5V6 | Z3 | 5.20 | 6.00 | 5 | 40 | 400 | 1.0 | 1.0 | 2.0 | -2.0 | 2.5 |
| BZX84C6V2 | Z4 | 5.80 | 6.60 | 5 | 10 | 150 | 1.0 | 3.0 | 4.0 | 0.4 | 3.7 |
| BZX84C6V8 | Z5 | 6.40 | 7.20 | 5 | 15 | 80 | 1.0 | 2.0 | 4.0 | 1.2 | 4.5 |
| BZX84C7V5 | Z6 | 7.00 | 7.90 | 5 | 15 | 80 | 1.0 | 1.0 | 5.0 | 2.5 | 5.3 |
| BZX84C8V2 | Z7 | 7.70 | 8.70 | 5 | 15 | 80 | 1.0 | 0.7 | 5.0 | 3.2 | 6.2 |
| BZX84C9V1 | Z8 | 8.50 | 9.60 | 5 | 15 | 100 | 1.0 | 0.5 | 6.0 | 3.8 | 7.0 |
| BZX84C10 | Z9 | 9.40 | 10.60 | 5 | 20 | 150 | 1.0 | 0.2 | 7.0 | 4.5 | 8.0 |
| BZX84C11 | Y1• | 10.40 | 11.60 | 5 | 20 | 150 | 1.0 | 0.1 | 8.0 | 5.4 | 9.0 |
| BZX84C12 | Y2• | 11.40 | 12.70 | 5 | 25 | 150 | 1.0 | 0.1 | 8.0 | 6.0 | 10.0 |
| BZX84C13 | Y3 | 12.40 | 14.10 | 5 | 30 | 170 | 1.0 | 0.1 | 8.0 | 7.0 | 11.0 |
| BZX84C15 | Y4 | 13.80 | 15.60 | 5 | 30 | 200 | 1.0 | 0.1 | 10.5 | 9.2 | 13.0 |
| BZX84C16 | Y5 | 15.30 | 17.10 | 5 | 40 | 200 | 1.0 | 0.1 | 11.2 | 10.4 | 14.0 |
| BZX84C18 | Y6• | 16.80 | 19.10 | 5 | 45 | 225 | 1.0 | 0.1 | 12.6 | 12.4 | 16.0 |
| BZX84C20 | Y7 | 18.80 | 21.20 | 5 | 55 | 225 | 1.0 | 0.1 | 14.0 | 14.4 | 18.0 |
| BZX84C22 | Y8 | 20.80 | 23.30 | 5 | 55 | 250 | 1.0 | 0.1 | 15.4 | 16.4 | 20.0 |
| BZX84C24 | Y9 | 22.80 | 25.60 | 5 | 70 | 250 | 1.0 | 0.1 | 16.8 | 18.4 | 22.0 |
| BZX84C27 | Y10 | 25.10 | 28.90 | 2 | 80 | 300 | 0.5 | 0.1 | 18.9 | 21.4 | 25.3 |
| BZX84C30 | Y11• | 28.00 | 32.00 | 2 | 80 | 300 | 0.5 | 0.1 | 21.0 | 24.4 | 29.4 |
| BZX84C33 | Y12 | 31.00 | 35.00 | 2 | 80 | 325 | 0.5 | 0.1 | 23.1 | 27.1 | 33.4 |
| BZX84C36 | Y13 | 34.00 | 38.00 | 2 | 90 | 350 | 0.5 | 0.1 | 25.2 | 30.4 | 37.4 |
| BZX84C39 | Y14 | 37.00 | 41.00 | 2 | 130 | 350 | 0.5 | 0.1 | 27.3 | 33.4 | 41.2 |
| BZX84C43 | Y15 | 40.00 | 46.00 | 2 | 100 | 700 | 1.0 | 0.1 | 32.0 | 10.0 | 12.0 |
| BZX84C47 | Y16 | 44.00 | 50.00 | 2 | 100 | 750 | 1.0 | 0.1 | 35.0 | 10.0 | 12.0 |
| BZX84C51 | Y17 | 48.00 | 54.00 | 2 | 125 | 750 | 1.0 | 0.1 | 38.0 | 10.0 | 12.0 |
| BZX84C56 | Y18 | 52.00 | 60.00 | 2 | 135 | 700 | 1.0 | 0.1 | 39.0 | 10.0 | 12.0 |
| BZX84C62 | Y19 | 58.00 | 66.00 | 2 | 200 | 1000 | 1.0 | 0.2 | 47.0 | 10.0 | 12.0 |
| BZX84C68 | Y20 | 64.00 | 72.00 | 2 | 250 | 1000 | 1.0 | 0.2 | 52.0 | 10.0 | 12.0 |
| BZX84C75 | Y21• | 70.00 | 79.00 | 2 | 300 | 1000 | 1.0 | 0.2 | 57.0 | 10.0 | 12.0 |

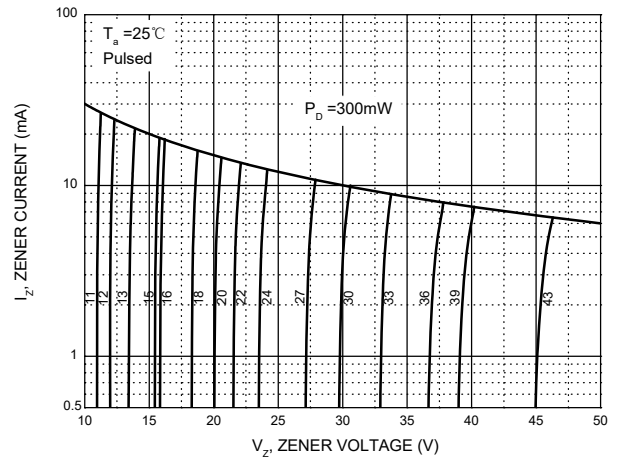


■ Typical Characteristics

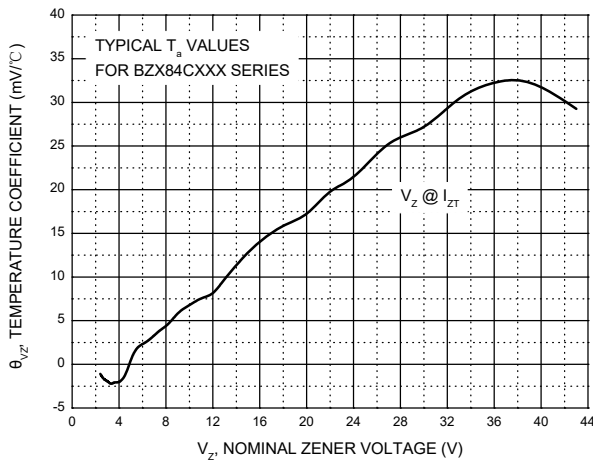
Zener Characteristics (V_z Up to 10 V)



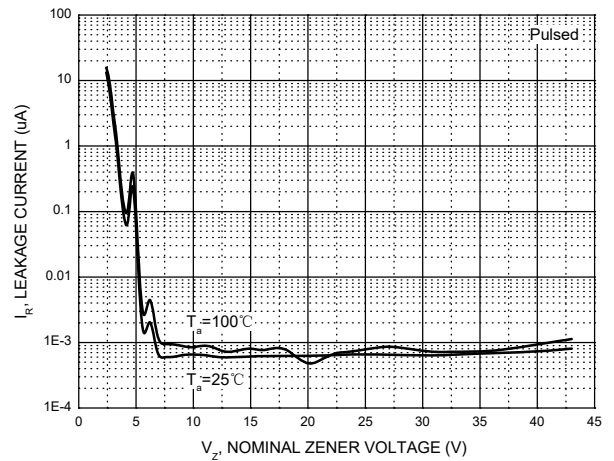
Zener Characteristics (11 V to 43 V)



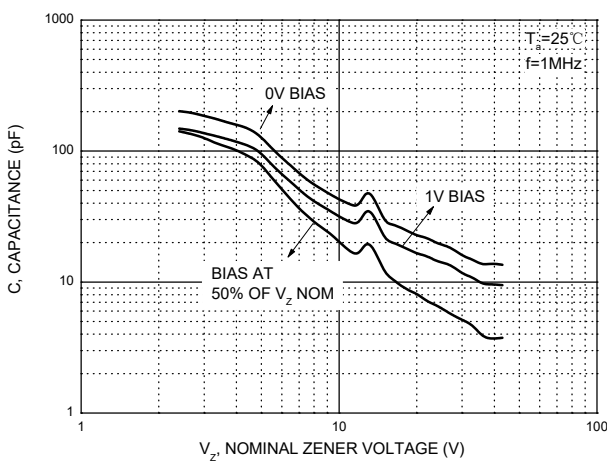
Temperature Coefficients



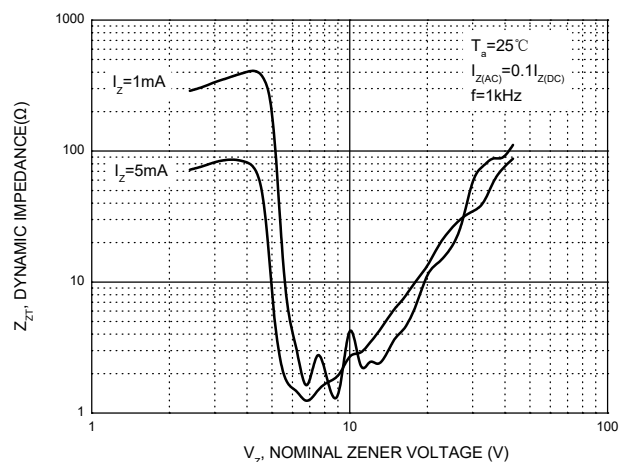
Typical Leakage Current



Typical Capacitance

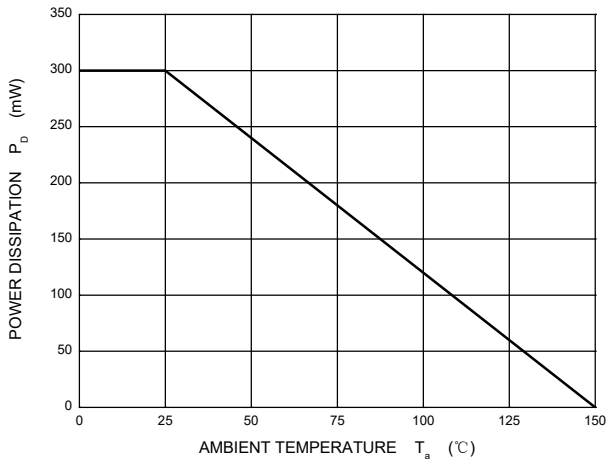


Effect of Zener Voltage on Zener Impedance

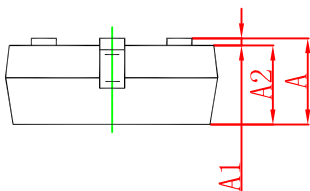
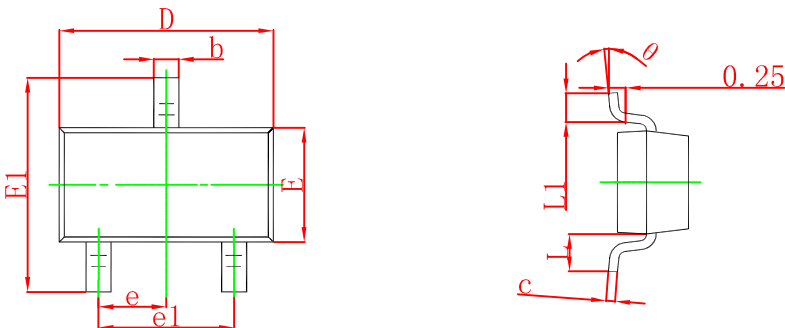




Power Derating Curve



■ SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP | | 0.037 TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF | | 0.022 REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

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