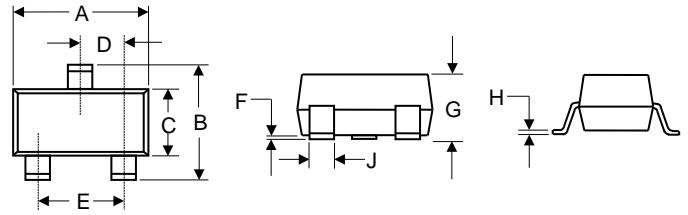
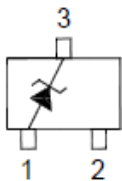


Features

- * Zener breakdown voltage range - 2.0 V to 75 V
- * Package designed for optimal automated board assembly
- * Small package size for high density applications



RoHS
COMPLIANT



1. Anode
2. Cathode
3. Cathode

| SOT-23 | | | | |
|--------|--------|-------|------|------|
| DIM | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.110 | 0.120 | 2.80 | 3.04 |
| B | 0.087 | 0.102 | 2.20 | 2.60 |
| C | 0.047 | 0.055 | 1.20 | 1.40 |
| D | 0.035 | 0.04 | 0.89 | 1.02 |
| E | 0.070 | 0.080 | 1.78 | 2.04 |
| F | --- | 0.004 | --- | 0.10 |
| G | 0.035 | 0.047 | 0.89 | 1.20 |
| H | 0.003 | 0.008 | 0.08 | 0.19 |
| J | 0.015 | 0.02 | 0.37 | 0.51 |

Mechanical Data

- * This series of Zener diodes is offered in the convenient, surface mount plastic SOT-23 package.
- * These devices are designed to provide voltage regulation with minimum space requirement.
- * They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.

Maximum Ratings (T_A=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|-----------------------------------|---------------|------|
| Power Dissipation | P _D | 350 | mW |
| Thermal Resistance, Junction to Ambient ¹⁾ | R _{θJA} | 357 | °C/W |
| Junction and Storage Temperature Range | T _j / T _{stg} | - 65 to + 150 | °C |

Note:

- 1) Alumina = 0.4 X 0.3 X 0.024 in, 99.5% alumina

Electrical Characteristics (T_A=25°C unless otherwise noted)

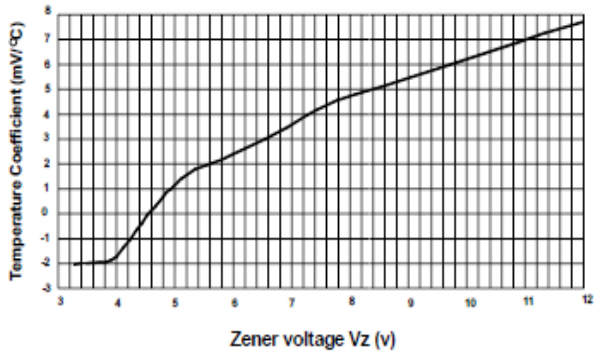
| Type | Marking Code | Zener Voltage Range ¹⁾ | | | | Dynamic Impedance | | Reverse Current | |
|-----------|--------------|-----------------------------------|----------|----------|--------------------|-------------------|--------------------|-----------------|-------------------|
| | | V _{ZT} | | | at I _{ZT} | Z _{ZT} | at I _{ZT} | I _R | at V _R |
| | | Nom. (V) | Min. (V) | Max. (V) | (mA) | Max. (Ω) | (mA) | Max. (μA) | (V) |
| BZX84C2V0 | A8 | 2 | 1.8 | 2.15 | 5 | 100 | 5 | 120 | 0.5 |
| BZX84C2V2 | B8 | 2.2 | 2.08 | 2.33 | 5 | 100 | 5 | 120 | 0.7 |
| BZX84C2V4 | C8 | 2.4 | 2.2 | 2.6 | 5 | 100 | 5 | 50 | 1 |
| BZX84C2V7 | D8 | 2.7 | 2.5 | 2.9 | 5 | 100 | 5 | 20 | 1 |
| BZX84C3V0 | E8 | 3 | 2.8 | 3.2 | 5 | 95 | 5 | 10 | 1 |
| BZX84C3V3 | F8 | 3.3 | 3.1 | 3.5 | 5 | 95 | 5 | 5 | 1 |
| BZX84C3V6 | H8 | 3.6 | 3.4 | 3.8 | 5 | 90 | 5 | 5 | 1 |
| BZX84C3V9 | J8 | 3.9 | 3.7 | 4.1 | 5 | 90 | 5 | 3 | 1 |
| BZX84C4V3 | K8 | 4.3 | 4 | 4.6 | 5 | 90 | 5 | 3 | 1 |
| BZX84C4V7 | M8 | 4.7 | 4.4 | 5 | 5 | 80 | 5 | 3 | 2 |
| BZX84C5V1 | N8 | 5.1 | 4.8 | 5.4 | 5 | 60 | 5 | 2 | 2 |
| BZX84C5V6 | P8 | 5.6 | 5.2 | 6 | 5 | 40 | 5 | 1 | 2 |
| BZX84C6V2 | R8 | 6.2 | 5.8 | 6.6 | 5 | 10 | 5 | 3 | 4 |
| BZX84C6V8 | X8 | 6.8 | 6.4 | 7.2 | 5 | 15 | 5 | 2 | 4 |
| BZX84C7V5 | Y8 | 7.5 | 7 | 7.9 | 5 | 15 | 5 | 1 | 5 |
| BZX84C8V2 | Z8 | 8.2 | 7.7 | 8.7 | 5 | 15 | 5 | 0.7 | 5 |
| BZX84C9V1 | A9 | 9.1 | 8.5 | 9.6 | 5 | 15 | 5 | 0.5 | 6 |
| BZX84C10 | B9 | 10 | 9.4 | 10.6 | 5 | 20 | 5 | 0.2 | 7 |
| BZX84C11 | C9 | 11 | 10.4 | 11.6 | 5 | 20 | 5 | 0.1 | 8 |
| BZX84C12 | D9 | 12 | 11.4 | 12.7 | 5 | 25 | 5 | 0.1 | 8 |
| BZX84C13 | E9 | 13 | 12.4 | 14.1 | 5 | 30 | 5 | 0.1 | 8 |
| BZX84C15 | F9 | 15 | 13.8 | 15.6 | 5 | 30 | 5 | 0.05 | 10.5 |
| BZX84C16 | H9 | 16 | 15.3 | 17.1 | 5 | 40 | 5 | 0.05 | 11.2 |
| BZX84C18 | J9 | 18 | 16.8 | 19.1 | 5 | 45 | 5 | 0.05 | 12.6 |
| BZX84C20 | K9 | 20 | 18.8 | 21.2 | 5 | 55 | 5 | 0.05 | 14 |
| BZX84C22 | M9 | 22 | 20.8 | 23.3 | 5 | 55 | 5 | 0.05 | 15.4 |
| BZX84C24 | N9 | 24 | 22.8 | 25.6 | 5 | 70 | 5 | 0.05 | 16.8 |
| BZX84C27 | P9 | 27 | 25.1 | 28.9 | 2 | 80 | 2 | 0.05 | 18.9 |
| BZX84C30 | R9 | 30 | 28 | 32 | 2 | 80 | 2 | 0.05 | 21 |
| BZX84C33 | X9 | 33 | 31 | 35 | 2 | 80 | 2 | 0.05 | 23.1 |
| BZX84C36 | Y9 | 36 | 34 | 38 | 2 | 90 | 2 | 0.05 | 25.2 |
| BZX84C39 | Z9 | 39 | 37 | 41 | 2 | 130 | 2 | 0.05 | 27.3 |
| BZX84C43 | A0 | 43 | 40 | 46 | 2 | 150 | 2 | 0.05 | 30.1 |
| BZX84C47 | B0 | 47 | 44 | 50 | 2 | 170 | 2 | 0.05 | 32.9 |
| BZX84C51 | C0 | 51 | 48 | 54 | 2 | 180 | 2 | 0.05 | 35.7 |
| BZX84C56 | D0 | 56 | 52 | 60 | 2 | 200 | 2 | 0.05 | 39.2 |
| BZX84C62 | E0 | 62 | 58 | 66 | 2 | 215 | 2 | 0.05 | 43.4 |
| BZX84C68 | F0 | 68 | 64 | 72 | 2 | 240 | 2 | 0.05 | 47.6 |
| BZX84C75 | H0 | 75 | 70 | 79 | 2 | 255 | 2 | 0.05 | 52.5 |

Note:

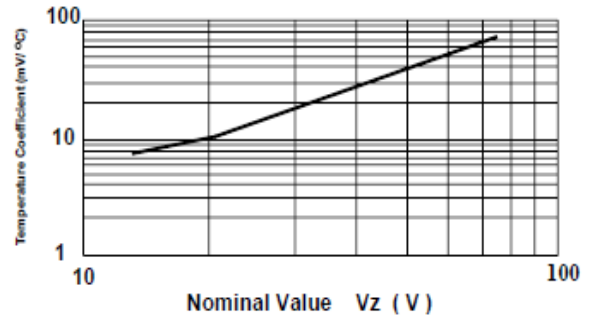
1) Tested with pulses t_p = 20 ms.

Ratings and Characteristic Curves

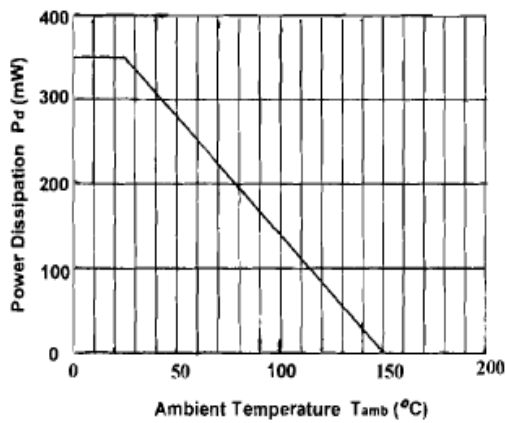
Temperature Coefficient



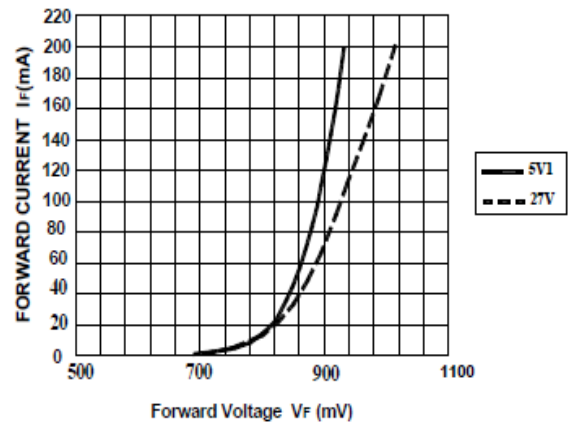
Temperature Coefficient



Power Derating Curve



Typical Forward Voltage





BZX84C Series Silicon Planar Zener Diodes

Ordering Information

| Part No. | Package | Packing Code | Packing |
|---------------|---------|--------------|--------------|
| BZX84C Series | SOT-23 | R30 | 3000pcs/Reel |

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