



Micro Commercial Components

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# BZX85C Series

## Features

- Low noise and Low reverse current
- Very high stability
- Very sharp reverse characteristic
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- DC Power Dissipation: 1.3 Watt @ L=4mm  $T_L \leq 25^\circ\text{C}$
- Forward Voltage @ 200mA: 1.0 Volts
- Thermal Resistance: 110K/W Junction to Ambient

# 1.3 Watt Zener Diode 2.7 to 75 Volts

Figure1. Power Dissipation vs. Ambient Temperature

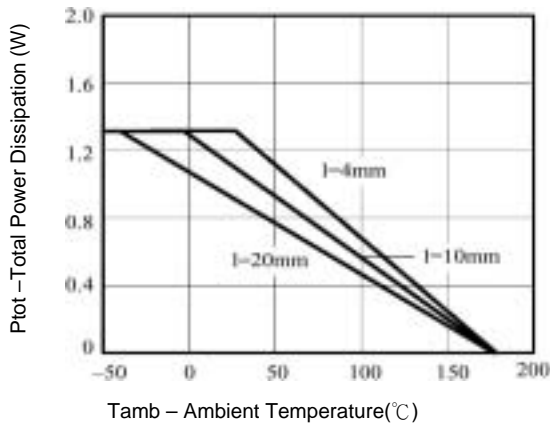
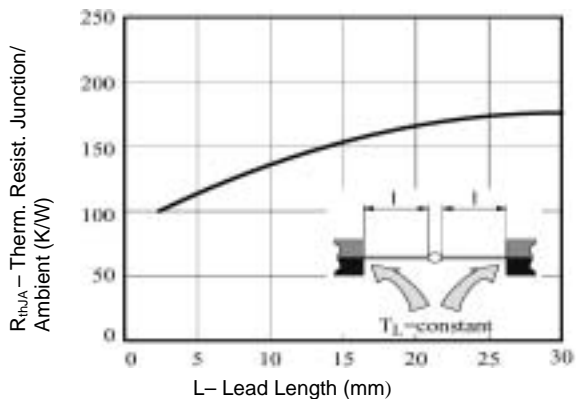
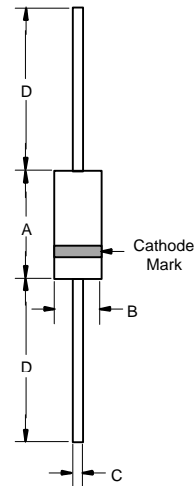


Figure2. Thermal Resistance vs. Lead Length



## DO-41G



| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .166   | .205 | 4.10  | 5.20 |      |
| B   | .080   | .107 | 2.00  | 2.70 |      |
| C   | .028   | .034 | .70   | .90  |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

Note: 1. Lead in Glass Solder Exemption Applied, see EU Directive Annex 5.

# BZX85C Series

| Type   | V <sub>Znom</sub> | I <sub>ZT</sub> | for V <sub>ZT</sub> and | r <sub>zjT</sub> | r <sub>zjk</sub> at | I <sub>ZK</sub> | I <sub>R</sub> at | V <sub>R</sub> | TK <sub>VZ</sub> |
|--------|-------------------|-----------------|-------------------------|------------------|---------------------|-----------------|-------------------|----------------|------------------|
| BZX85C | V                 | mA              | V <sup>1)</sup>         | Ω                | Ω                   | mA              | μ A               | V              | %/K              |
| 2V7    | 2.7               | 80              | 2.5~2.9                 | <20              | <400                | 1               | <150              | 1              | -0.09~-0.06      |
| 3V0    | 3.0               | 80              | 2.8~3.2                 | <20              | <400                | 1               | <100              | 1              | -0.08~-0.05      |
| 3V3    | 3.3               | 80              | 3.1~3.5                 | <20              | <400                | 1               | <40               | 1              | -0.08~-0.05      |
| 3V6    | 3.6               | 60              | 3.4~3.8                 | <20              | <500                | 1               | <20               | 1              | -0.08~-0.05      |
| 3V9    | 3.9               | 60              | 3.7~4.1                 | <15              | <500                | 1               | <10               | 1              | -0.08~-0.05      |
| 4V3    | 4.3               | 50              | 4.0~4.6                 | <13              | <500                | 1               | <3                | 1              | -0.06~-0.03      |
| 4V7    | 4.7               | 45              | 4.4~5.0                 | <13              | <500                | 1               | <3                | 1              | -0.05~-+0.02     |
| 5V1    | 5.1               | 45              | 4.8~5.4                 | <10              | <500                | 1               | <1                | 1              | -0.02~-+0.02     |
| 5V6    | 5.6               | 45              | 5.2~6.0                 | <7               | <400                | 1               | <1                | 1              | -0.05~-+0.05     |
| 6V2    | 6.2               | 35              | 5.8~6.6                 | <4               | <300                | 1               | <1                | 2              | 0.03~0.06        |
| 6V8    | 6.8               | 35              | 6.4~7.2                 | <3.5             | <300                | 1               | <1                | 3              | 0.03~0.07        |
| 7V5    | 7.5               | 35              | 7.0~7.9                 | <3               | <200                | 0.5             | <1                | 5              | 0.03~0.07        |
| 8V2    | 8.2               | 25              | 7.7~8.7                 | <5               | <200                | 0.5             | <1                | 6.2            | 0.03~0.08        |
| 9V1    | 9.1               | 25              | 8.5~9.6                 | <5               | <200                | 0.5             | <1                | 6.8            | 0.03~0.09        |
| 10     | 10                | 25              | 9.4~10.6                | <7               | <200                | 0.5             | <0.5              | 7.5            | 0.03~0.1         |
| 11     | 11                | 20              | 10.4~11.6               | <8               | <300                | 0.5             | <0.5              | 8.2            | 0.03~0.11        |
| 12     | 12                | 20              | 11.4~12.7               | <9               | <350                | 0.5             | <0.5              | 9.1            | 0.03~0.11        |
| 13     | 13                | 20              | 12.4~14.1               | <10              | <400                | 0.5             | <0.5              | 10             | 0.03~0.11        |
| 15     | 15                | 15              | 13.8~15.6               | <15              | <500                | 0.5             | <0.5              | 11             | 0.03~0.11        |
| 16     | 16                | 15              | 15.3~17.1               | <15              | <500                | 0.5             | <0.5              | 12             | 0.03~0.11        |
| 18     | 18                | 15              | 16.8~19.1               | <20              | <500                | 0.5             | <0.5              | 13             | 0.03~0.11        |
| 20     | 20                | 10              | 18.8~21.2               | <24              | <600                | 0.5             | <0.5              | 15             | 0.03~0.11        |
| 22     | 22                | 10              | 20.8~23.3               | <25              | <600                | 0.5             | <0.5              | 16             | 0.04~0.12        |
| 24     | 24                | 10              | 22.8~25.6               | <25              | <600                | 0.5             | <0.5              | 18             | 0.04~0.12        |
| 27     | 27                | 8               | 25.1~28.9               | <30              | <750                | 0.25            | <0.5              | 20             | 0.04~0.12        |
| 30     | 30                | 8               | 28~32                   | <30              | <1000               | 0.25            | <0.5              | 22             | 0.04~0.12        |
| 33     | 33                | 8               | 31~35                   | <35              | <1000               | 0.25            | <0.5              | 24             | 0.04~0.12        |
| 36     | 36                | 8               | 34~38                   | <40              | <1000               | 0.25            | <0.5              | 27             | 0.04~0.12        |
| 39     | 39                | 6               | 37~41                   | <50              | <1000               | 0.25            | <0.5              | 30             | 0.04~0.12        |
| 43     | 43                | 6               | 40~46                   | <50              | <1000               | 0.25            | <0.5              | 33             | 0.04~0.12        |
| 47     | 47                | 4               | 44~50                   | <90              | <1500               | 0.25            | <0.5              | 36             | 0.04~0.12        |
| 51     | 51                | 4               | 48~54                   | <115             | <1500               | 0.25            | <0.5              | 39             | 0.04~0.12        |
| 56     | 56                | 4               | 52~60                   | <120             | <2000               | 0.25            | <0.5              | 43             | 0.04~0.12        |
| 62     | 62                | 4               | 58~66                   | <125             | <2000               | 0.25            | <0.5              | 47             | 0.04~0.12        |
| 68     | 68                | 4               | 64~72                   | <130             | <2000               | 0.25            | <0.5              | 51             | 0.04~0.12        |
| 75     | 75                | 4               | 70~79                   | <135             | <2000               | 0.25            | <0.5              | 56             | 0.04~0.12        |

<sup>1)</sup> Tighter tolerances available request:  
BZX85B... ±2% of V<sub>Znom</sub>



TM

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## Ordering Information

| Device           | Packing                      |
|------------------|------------------------------|
| (Part Number)-TP | Tape&Reel; 5Kpcs/Reel        |
| (Part Number)-AP | Ammo Packing;2.5Kpcs/AmmoBox |
| (Part Number)-BP | Bulk;1Kpcs/Box               |

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