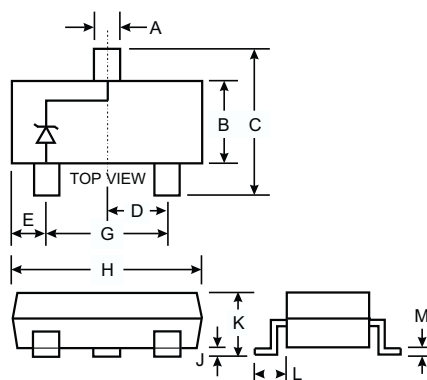


## Features

- Planar Die Construction
- 350mW Power Dissipation
- Zener Voltages from 2.4V - 51V
- Ideally Suited for Automated Assembly Processes

| SOT-23               |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 0.37  | 0.51  |
| B                    | 1.19  | 1.40  |
| C                    | 2.10  | 2.50  |
| D                    | 0.89  | 1.05  |
| E                    | 0.45  | 0.61  |
| G                    | 1.78  | 2.05  |
| H                    | 2.65  | 3.05  |
| J                    | 0.013 | 0.15  |
| K                    | 0.89  | 1.10  |
| L                    | 0.45  | 0.61  |
| M                    | 0.076 | 0.178 |
| All Dimensions in mm |       |       |



## Maximum Ratings @T<sub>a</sub> =25 °C unless otherwise specified

| Characteristic                                       | Symbol                            | Value       | Unit |
|------------------------------------------------------|-----------------------------------|-------------|------|
| Forward Voltage @ I <sub>F</sub> = 10mA              | V <sub>F</sub>                    | 0.9         | V    |
| Power Dissipation (Note 1)                           | P <sub>d</sub>                    | 350         | mW   |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R <sub>θJA</sub>                  | 357         | K/W  |
| Operating and Storage Temperature Range              | T <sub>J</sub> , T <sub>STG</sub> | -65 to +150 | °C   |

- Notes:
1. Valid provided that device terminals are kept at ambient temperature.
  2. Tested with pulses, 300μs pulse width, period = 5ms.
  3. f = 1KHz.

## Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

| Type Number | Marking Code | Zener Voltage Range (Note 2)     |         |         |                 | Maximum Zener Impedance (Note 3)  |                                   |      | Maximum Reverse Current |                | Typical Temperature Coefficient @ I <sub>ZT</sub> mV/°C |      |
|-------------|--------------|----------------------------------|---------|---------|-----------------|-----------------------------------|-----------------------------------|------|-------------------------|----------------|---------------------------------------------------------|------|
|             |              | V <sub>Z</sub> @ I <sub>ZT</sub> |         |         | I <sub>ZT</sub> | Z <sub>ZT</sub> @ I <sub>ZT</sub> | Z <sub>ZK</sub> @ I <sub>ZK</sub> |      | I <sub>R</sub>          | V <sub>R</sub> | Min                                                     | Max  |
|             |              | Nom (V)                          | Min (V) | Max (V) | (mA)            | ( Ω )                             | (Ω)                               | (mA) | (μA)                    | (V)            |                                                         |      |
| BZX84C2V4   | Z11/KZB      | 2.4                              | 2.2     | 2.6     | 5.0             | 100                               | 600                               | 1.0  | 50                      | 1.0            | -3.5                                                    | 0    |
| BZX84C2V7   | Z12/KZC      | 2.7                              | 2.5     | 2.9     | 5.0             | 100                               | 600                               | 1.0  | 20                      | 1.0            | -3.5                                                    | 0    |
| BZX84C3V0   | Z13/KZD      | 3.0                              | 2.8     | 3.2     | 5.0             | 95                                | 600                               | 1.0  | 10                      | 1.0            | -3.5                                                    | 0    |
| BZX84C3V3   | Z14/KZE      | 3.3                              | 3.1     | 3.5     | 5.0             | 95                                | 600                               | 1.0  | 5.0                     | 1.0            | -3.5                                                    | 0    |
| BZX84C3V6   | Z15/KZF      | 3.6                              | 3.4     | 3.8     | 5.0             | 90                                | 600                               | 1.0  | 5.0                     | 1.0            | -3.5                                                    | 0    |
| BZX84C3V9   | Z16/KZG      | 3.9                              | 3.7     | 4.1     | 5.0             | 90                                | 600                               | 1.0  | 3.0                     | 1.0            | -3.5                                                    | 0    |
| BZX84C4V3   | Z17/KZH      | 4.3                              | 4.0     | 4.6     | 5.0             | 90                                | 600                               | 1.0  | 3.0                     | 1.0            | -3.5                                                    | 0    |
| BZX84C4V7   | Z1/KZ1       | 4.7                              | 4.4     | 5.0     | 5.0             | 80                                | 500                               | 1.0  | 3.0                     | 2.0            | -3.5                                                    | 0.2  |
| BZX84C5V1   | Z2/KZ2       | 5.1                              | 4.8     | 5.4     | 5.0             | 60                                | 480                               | 1.0  | 2.0                     | 2.0            | -2.7                                                    | 1.2  |
| BZX84C5V6   | Z3/KZ3       | 5.6                              | 5.2     | 6.0     | 5.0             | 40                                | 400                               | 1.0  | 1.0                     | 2.0            | -2.0                                                    | 2.5  |
| BZX84C6V2   | Z4/KZ4       | 6.2                              | 5.8     | 6.6     | 5.0             | 10                                | 150                               | 1.0  | 3.0                     | 4.0            | 0.4                                                     | 3.7  |
| BZX84C6V8   | Z5/KZ5       | 6.8                              | 6.4     | 7.2     | 5.0             | 15                                | 80                                | 1.0  | 2.0                     | 4.0            | 1.2                                                     | 4.5  |
| BZX84C7V5   | Z6/KZ6       | 7.5                              | 7.0     | 7.9     | 5.0             | 15                                | 80                                | 1.0  | 1.0                     | 5.0            | 2.5                                                     | 5.3  |
| BZX84C8V2   | Z7/KZ7       | 8.2                              | 7.7     | 8.7     | 5.0             | 15                                | 80                                | 1.0  | 0.7                     | 5.0            | 3.2                                                     | 6.2  |
| BZX84C9V1   | Z8/KZ8       | 9.1                              | 8.5     | 9.6     | 5.0             | 15                                | 100                               | 1.0  | 0.5                     | 6.0            | 3.8                                                     | 7.0  |
| BZX84C10    | Z9/KZ9/8Q    | 10                               | 9.4     | 10.6    | 5.0             | 20                                | 150                               | 1.0  | 0.2                     | 7.0            | 4.5                                                     | 8.0  |
| BZX84C11    | Y1/KY1       | 11                               | 10.4    | 11.6    | 5.0             | 20                                | 150                               | 1.0  | 0.1                     | 8.0            | 5.4                                                     | 9.0  |
| BZX84C12    | Y2/KY2       | 12                               | 11.4    | 12.7    | 5.0             | 25                                | 150                               | 1.0  | 0.1                     | 8.0            | 6.0                                                     | 10.0 |
| BZX84C13    | Y3/KY3       | 13                               | 12.4    | 14.1    | 5.0             | 30                                | 170                               | 1.0  | 0.1                     | 8.0            | 7.0                                                     | 11.0 |
| BZX84C15    | Y4/KY4       | 15                               | 13.8    | 15.6    | 5.0             | 30                                | 200                               | 1.0  | 0.1                     | 10.5           | 9.2                                                     | 13.0 |
| BZX84C16    | Y5/KY5       | 16                               | 15.3    | 17.1    | 5.0             | 40                                | 200                               | 1.0  | 0.1                     | 11.2           | 10.4                                                    | 14.0 |
| BZX84C18    | Y6/KY6       | 18                               | 16.8    | 19.1    | 5.0             | 45                                | 225                               | 1.0  | 0.1                     | 12.6           | 12.4                                                    | 16.0 |
| BZX84C20    | Y7/KY7       | 20                               | 18.8    | 21.2    | 5.0             | 55                                | 225                               | 1.0  | 0.1                     | 14.0           | 14.4                                                    | 18.0 |
| BZX84C22    | Y8/KY8       | 22                               | 20.8    | 23.3    | 5.0             | 55                                | 250                               | 1.0  | 0.1                     | 15.4           | 16.4                                                    | 20.0 |
| BZX84C24    | Y9/KY9       | 24                               | 22.8    | 25.6    | 5.0             | 70                                | 250                               | 1.0  | 0.1                     | 16.8           | 18.4                                                    | 22.0 |
| BZX84C27    | Y10/KYA      | 27                               | 25.1    | 28.9    | 2.0             | 80                                | 300                               | 0.5  | 0.1                     | 18.9           | 21.4                                                    | 25.3 |
| BZX84C30    | Y11/KYB      | 30                               | 28.0    | 32.0    | 2.0             | 80                                | 300                               | 0.5  | 0.1                     | 21.0           | 24.4                                                    | 29.4 |
| BZX84C33    | Y12/KYC      | 33                               | 31.0    | 35.0    | 2.0             | 80                                | 325                               | 0.5  | 0.1                     | 23.1           | 27.4                                                    | 33.4 |
| BZX84C36    | Y13/KYD      | 36                               | 34.0    | 38.0    | 2.0             | 90                                | 350                               | 0.5  | 0.1                     | 25.2           | 30.4                                                    | 37.4 |
| BZX84C39    | Y14/KYE      | 39                               | 37.0    | 41.0    | 2.0             | 130                               | 350                               | 0.5  | 0.1                     | 27.3           | 33.4                                                    | 41.2 |
| BZX84C43    | Y15/KYF      | 43                               | 40.0    | 46.0    | 2.0             | 150                               | 375                               | 0.5  | 0.1                     | 30.1           | 10.0                                                    | 12.0 |
| BZX84C47    | Y16/KYG      | 47                               | 44.0    | 50.0    | 2.0             | 170                               | 375                               | 0.5  | 0.1                     | 32.9           | 10.0                                                    | 12.0 |
| BZX84C51    | Y17/KYH      | 51                               | 48.0    | 54.0    | 2.0             | 180                               | 400                               | 0.5  | 0.1                     | 35.7           | 10.0                                                    | 12.0 |

- Notes:
1. Valid provided that device terminals are kept at ambient temperature.
  2. Tested with pulses, 300μs pulse width, period = 5ms.
  3. f = 1KHz.

## RATING AND CHARACTERISTICS CURVES ( BZX84C2V4 THRU BZX84C51 )

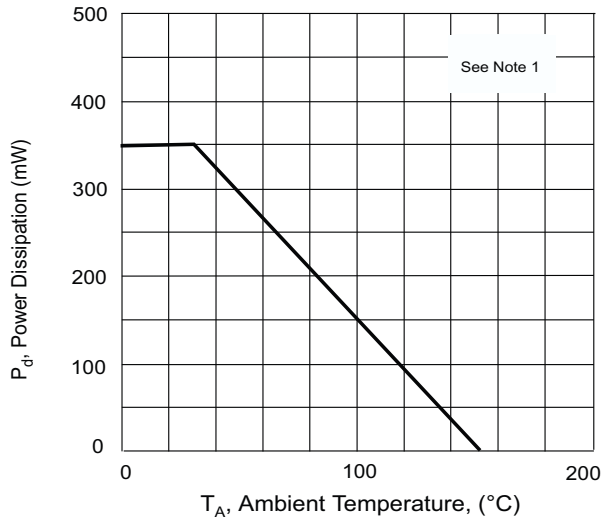


Fig. 1 Power Derating Curve

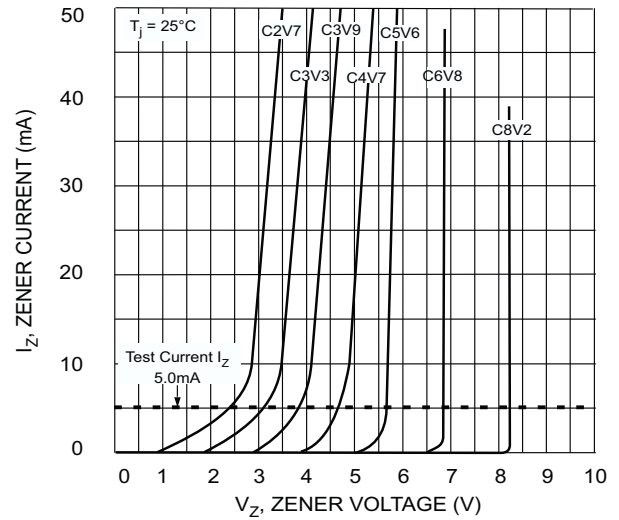


Fig. 2 Zener Breakdown Characteristics

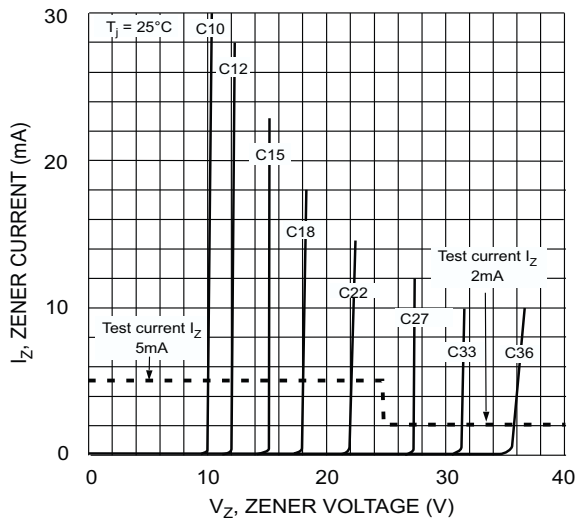


Fig. 3 Zener Breakdown Characteristics

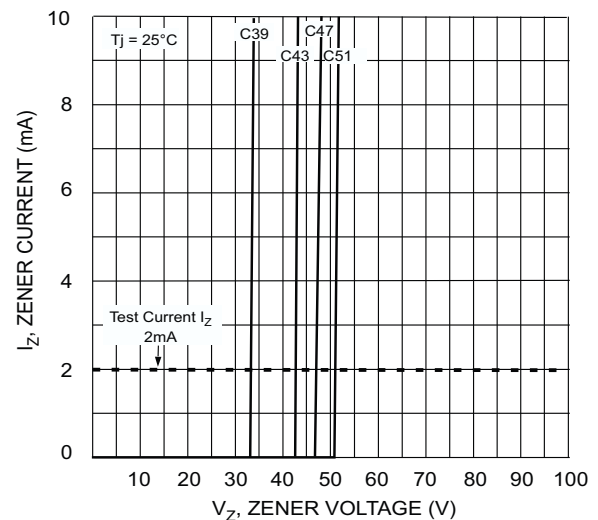


Fig. 4 Zener Breakdown Characteristics

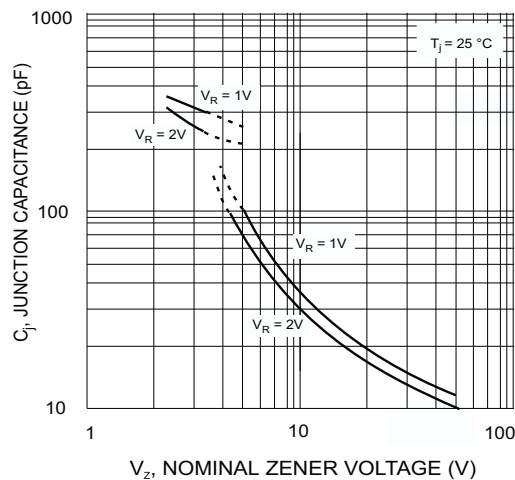


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.