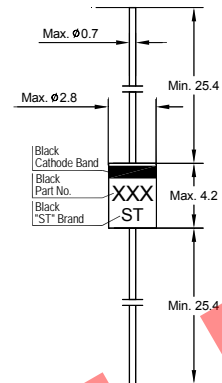


# BZV85C

## Silicon Planar Power Zener Diodes

for use in stabilizing and clipping circuits with high power rating. The Zener voltages are graded according to the international E24 standard. Smaller voltage tolerances and higher Zener voltages are upon request.



Glass Case DO-41  
Dimensions in mm

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

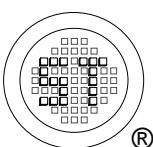
| Parameter                 | Symbol    | Value           | Unit             |
|---------------------------|-----------|-----------------|------------------|
| Power Dissipation         | $P_{tot}$ | 1 <sup>1)</sup> | W                |
| Junction Temperature      | $T_j$     | 200             | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{stg}$ | - 65 to + 200   | $^\circ\text{C}$ |

<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter                                   | Symbol    | Max.              | Unit |
|---|-----------|-------------------|------|
| Thermal Resistance Junction to Ambient Air  | $R_{thA}$ | 170 <sup>1)</sup> | K/W  |
| Forward Voltage<br>at $I_F = 200\text{ mA}$ | $V_F$     | 1.2               | V    |

<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.



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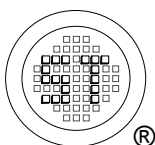
Dated: 18/06/2012 Rev: 01

# BZV85C

## Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Type      | Zener Voltage Range <sup>1)</sup> |             |             | Dynamic Resistance |             |                   |             | Reverse Current        |          |
|-----------|-----------------------------------|-------------|-------------|--------------------|-------------|-------------------|-------------|------------------------|----------|
|           | $V_{Znom}$                        | $V_{ZT}$    | at $I_{ZT}$ | $Z_{ZT}$           | at $I_{ZT}$ | $Z_{ZT}$          | at $I_{ZK}$ | $I_R$                  | at $V_R$ |
|           | (V)                               | (V)         | (mA)        | Max. ( $\Omega$ )  | (mA)        | Max. ( $\Omega$ ) | (mA)        | Max. ( $\mu\text{A}$ ) | (V)      |
| BZV85C3V0 | 3                                 | 2.8...3.2   | 80          | 20                 | 80          | 400               | 1           | 100                    | 1        |
| BZV85C3V3 | 3.3                               | 3.1...3.5   | 70          | 20                 | 70          | 400               | 1           | 40                     | 1        |
| BZV85C3V6 | 3.6                               | 3.4...3.8   | 60          | 15                 | 60          | 500               | 1           | 20                     | 1        |
| BZV85C3V9 | 3.9                               | 3.7...4.1   | 60          | 15                 | 60          | 500               | 1           | 10                     | 1        |
| BZV85C4V3 | 4.3                               | 4...4.6     | 50          | 13                 | 50          | 500               | 1           | 3                      | 1        |
| BZV85C4V7 | 4.7                               | 4.4...5     | 45          | 13                 | 45          | 600               | 1           | 3                      | 1        |
| BZV85C5V1 | 5.1                               | 4.8...5.4   | 45          | 10                 | 45          | 500               | 1           | 1                      | 1.5      |
| BZV85C5V6 | 5.6                               | 5.2...6     | 45          | 7                  | 45          | 400               | 1           | 1                      | 2        |
| BZV85C6V2 | 6.2                               | 5.8...6.6   | 35          | 4                  | 35          | 300               | 1           | 1                      | 3        |
| BZV85C6V8 | 6.8                               | 6.4...7.2   | 35          | 3.5                | 35          | 300               | 1           | 1                      | 4        |
| BZV85C7V5 | 7.5                               | 7...7.9     | 35          | 3                  | 35          | 200               | 0.5         | 1                      | 4.5      |
| BZV85C8V2 | 8.2                               | 7.7...8.7   | 25          | 5                  | 25          | 200               | 0.5         | 1                      | 6.2      |
| BZV85C9V1 | 9.1                               | 8.5...9.6   | 25          | 5                  | 25          | 200               | 0.5         | 1                      | 6.8      |
| BZV85C10  | 10                                | 9.4...10.6  | 25          | 7                  | 25          | 200               | 0.5         | 0.5                    | 7        |
| BZV85C11  | 11                                | 10.4...11.6 | 20          | 8                  | 20          | 300               | 0.5         | 0.5                    | 8.2      |
| BZV85C12  | 12                                | 11.4...12.7 | 20          | 9                  | 20          | 350               | 0.5         | 0.5                    | 9.1      |
| BZV85C13  | 13                                | 12.4...14.1 | 20          | 10                 | 20          | 400               | 0.5         | 0.5                    | 10       |
| BZV85C15  | 15                                | 13.8...15.6 | 15          | 15                 | 15          | 500               | 0.5         | 0.5                    | 11       |
| BZV85C16  | 16                                | 15.3...17.1 | 15          | 15                 | 15          | 500               | 0.5         | 0.5                    | 12       |
| BZV85C18  | 18                                | 16.8...19.1 | 15          | 20                 | 15          | 500               | 0.5         | 0.5                    | 13       |
| BZV85C20  | 20                                | 18.8...21.2 | 10          | 24                 | 10          | 600               | 0.5         | 0.5                    | 15       |
| BZV85C22  | 22                                | 20.8...23.3 | 10          | 25                 | 10          | 600               | 0.5         | 0.5                    | 16       |
| BZV85C24  | 24                                | 22.8...25.6 | 10          | 25                 | 10          | 600               | 0.5         | 0.5                    | 18       |
| BZV85C27  | 27                                | 25.1...28.9 | 8           | 30                 | 8           | 750               | 0.25        | 0.5                    | 20       |
| BZV85C30  | 30                                | 28...32     | 8           | 30                 | 8           | 1000              | 0.25        | 0.5                    | 22       |
| BZV85C33  | 33                                | 31...35     | 8           | 35                 | 8           | 1000              | 0.25        | 0.5                    | 24       |
| BZV85C36  | 36                                | 34...38     | 8           | 40                 | 8           | 1000              | 0.25        | 0.5                    | 27       |
| BZV85C39  | 39                                | 37...41     | 6           | 50                 | 6           | 1000              | 0.25        | 0.5                    | 30       |
| BZV85C43  | 43                                | 40...46     | 6           | 50                 | 6           | 1000              | 0.25        | 0.5                    | 33       |
| BZV85C47  | 47                                | 44...50     | 4           | 90                 | 4           | 1500              | 0.25        | 0.5                    | 36       |
| BZV85C51  | 51                                | 48...54     | 4           | 115                | 4           | 1500              | 0.25        | 0.5                    | 39       |
| BZV85C56  | 56                                | 52...60     | 4           | 120                | 4           | 2000              | 0.25        | 0.5                    | 43       |
| BZV85C62  | 62                                | 58...66     | 4           | 125                | 4           | 2000              | 0.25        | 0.5                    | 47       |
| BZV85C68  | 68                                | 64...72     | 4           | 130                | 4           | 2000              | 0.25        | 0.5                    | 51       |
| BZV85C75  | 75                                | 70...79     | 4           | 135                | 4           | 2000              | 0.25        | 0.5                    | 56       |

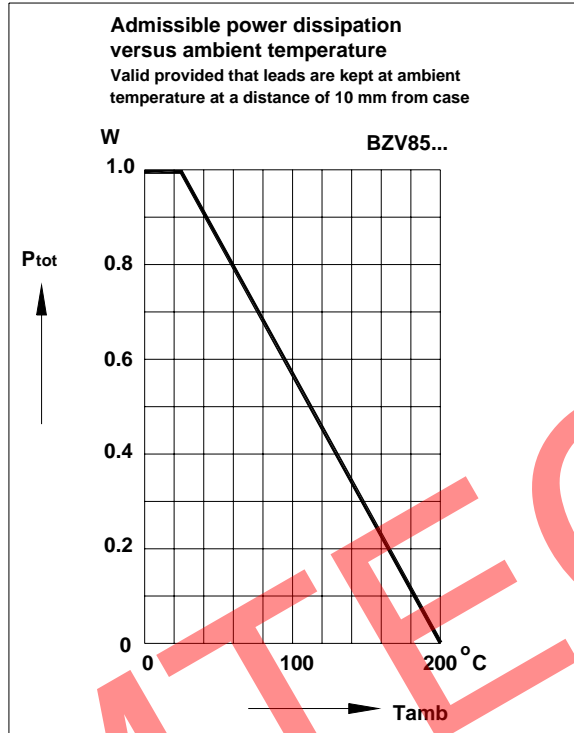
<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .



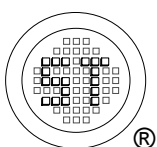
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