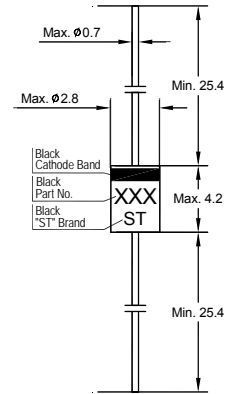


# BZX1.5C

## SILICON PLANAR ZENER DIODES



Glass Case DO-41  
Dimensions in mm

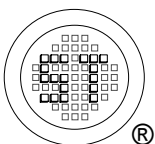
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                 | Symbol    | Value             | Unit             |
|---------------------------|-----------|-------------------|------------------|
| Power Dissipation         | $P_{tot}$ | 1.5 <sup>1)</sup> | W                |
| Junction Temperature      | $T_j$     | 175               | $^\circ\text{C}$ |
| Storage Temperature Range | $T_s$     | - 65 to + 175     | $^\circ\text{C}$ |

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

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

| Parameter                                   | Symbol | Max. | Unit |
|---|--------|------|------|
| Forward Voltage<br>at $I_F = 200\text{ mA}$ | $V_F$  | 1.2  | V    |



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ISO 14001:2004  
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ISO 9001:2000  
Certificate No. 0506098

Dated : 12/06/2007

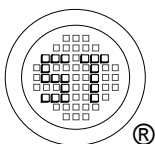
# BZX1.5C

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

| Type       | Zener Voltage Range <sup>1)</sup> |              |               | Maximum Dynamic Resistance |                          |               | Maximum Reverse Leakage Current |           | Maximum DC Zener Current <sup>2)</sup><br>$I_{ZM}$ (mA) |
|------------|-----------------------------------|--------------|---------------|----------------------------|--------------------------|---------------|---------------------------------|-----------|---|
|            | $V_{Znom}$ (V)                    | $V_{ZT}$ (V) | $I_{ZT}$ (mA) | ( $\Omega$ ) at $I_{ZT}$   | ( $\Omega$ ) at $I_{ZK}$ | $I_{ZK}$ (mA) | $I_R$ ( $\mu$ A)                | $V_R$ (V) |   |
| BZX1.5C3V3 | 3.3                               | 3.1...3.5    | 113.6         | 10                         | 500                      | 1             | 100                             | 1         | 454   |
| BZX1.5C3V6 | 3.6                               | 3.4...3.8    | 104.2         | 9                          | 500                      | 1             | 75                              | 1         | 416   |
| BZX1.5C3V9 | 3.9                               | 3.7...4.1    | 96.1          | 7.5                        | 500                      | 1             | 25                              | 1         | 384   |
| BZX1.5C4V3 | 4.3                               | 4...4.6      | 87.2          | 6                          | 500                      | 1             | 5                               | 1         | 348   |
| BZX1.5C4V7 | 4.7                               | 4.4...5      | 79.8          | 5                          | 500                      | 1             | 5                               | 1.5       | 319   |
| BZX1.5C5V1 | 5.1                               | 4.8...5.4    | 73.5          | 4                          | 350                      | 1             | 5                               | 2         | 294   |
| BZX1.5C5V6 | 5.6                               | 5.2...6      | 66.9          | 2                          | 250                      | 1             | 5                               | 3         | 267   |
| BZX1.5C6V2 | 6.2                               | 5.8...6.6    | 60.5          | 2                          | 200                      | 1             | 5                               | 4         | 241   |
| BZX1.5C6V8 | 6.8                               | 6.4...7.2    | 55.1          | 2.5                        | 200                      | 1             | 5                               | 5.2       | 220   |
| BZX1.5C7V5 | 7.5                               | 7...7.9      | 50            | 3                          | 400                      | 0.5           | 5                               | 6.8       | 200   |
| BZX1.5C8V2 | 8.2                               | 7.7...8.7    | 45.7          | 3.5                        | 400                      | 0.5           | 5                               | 6.5       | 182   |
| BZX1.5C9V1 | 9.1                               | 8.5...9.6    | 41.2          | 4                          | 500                      | 0.5           | 5                               | 7         | 164   |
| BZX1.5C10  | 10                                | 9.4...10.6   | 37.5          | 4.5                        | 500                      | 0.25          | 5                               | 8         | 150   |
| BZX1.5C11  | 11                                | 10.4...11.6  | 34.1          | 5.5                        | 550                      | 0.25          | 1                               | 8.4       | 136   |
| BZX1.5C12  | 12                                | 11.4...12.7  | 31.2          | 6.5                        | 550                      | 0.25          | 1                               | 9.1       | 125   |
| BZX1.5C13  | 13                                | 12.4...14.1  | 28.8          | 7                          | 550                      | 0.25          | 1                               | 9.9       | 115   |
| BZX1.5C15  | 15                                | 13.8...15.6  | 25            | 9                          | 550                      | 0.25          | 1                               | 11.4      | 100   |
| BZX1.5C16  | 16                                | 15.3...17.1  | 23.4          | 10                         | 600                      | 0.25          | 1                               | 12.2      | 93  |
| BZX1.5C18  | 18                                | 16.8...19.1  | 20.8          | 12                         | 600                      | 0.25          | 1                               | 13.7      | 83  |
| BZX1.5C20  | 20                                | 18.8...21.2  | 18.7          | 14                         | 650                      | 0.25          | 1                               | 15.2      | 75  |
| BZX1.5C22  | 22                                | 20.8...23.3  | 17            | 17.5                       | 650                      | 0.25          | 1                               | 16.7      | 68  |
| BZX1.5C24  | 24                                | 22.8...25.6  | 15.6          | 19                         | 700                      | 0.25          | 1                               | 18.2      | 62  |
| BZX1.5C27  | 27                                | 25.1...28.9  | 13.9          | 23                         | 700                      | 0.25          | 1                               | 20.6      | 55  |
| BZX1.5C30  | 30                                | 28...32      | 12.5          | 26                         | 750                      | 0.25          | 1                               | 22.8      | 50  |
| BZX1.5C33  | 33                                | 31...35      | 11.4          | 33                         | 800                      | 0.25          | 1                               | 25.1      | 45  |
| BZX1.5C36  | 36                                | 34...38      | 10.4          | 38                         | 850                      | 0.25          | 1                               | 27.4      | 41  |
| BZX1.5C39  | 39                                | 37...41      | 9.6           | 45                         | 900                      | 0.25          | 1                               | 29.7      | 38  |
| BZX1.5C43  | 43                                | 40...46      | 8.7           | 53                         | 950                      | 0.25          | 1                               | 32.7      | 34  |
| BZX1.5C47  | 47                                | 44...50      | 8             | 67                         | 1000                     | 0.25          | 1                               | 35.8      | 31  |
| BZX1.5C51  | 51                                | 48...54      | 7.3           | 70                         | 1100                     | 0.25          | 1                               | 38.8      | 29  |
| BZX1.5C56  | 56                                | 52...60      | 6.7           | 86                         | 1300                     | 0.25          | 1                               | 42.6      | 26  |
| BZX1.5C62  | 62                                | 58...66      | 6             | 100                        | 1500                     | 0.25          | 1                               | 44.1      | 24  |
| BZX1.5C68  | 68                                | 64...72      | 5.5           | 120                        | 1700                     | 0.25          | 1                               | 51.7      | 22  |
| BZX1.5C75  | 75                                | 70...79      | 5             | 140                        | 2000                     | 0.25          | 1                               | 56        | 20  |
| BZX1.5C82  | 82                                | 77...87      | 4.6           | 160                        | 2500                     | 0.25          | 1                               | 62.2      | 18  |
| BZX1.5C91  | 91                                | 85...96      | 4.1           | 200                        | 3000                     | 0.25          | 1                               | 69.2      | 16  |
| BZX1.5C100 | 100                               | 94...106     | 3.7           | 250                        | 3100                     | 0.25          | 1                               | 76        | 15  |
| BZX1.5C110 | 110                               | 104...116    | 3.4           | 300                        | 4000                     | 0.25          | 1                               | 83.6      | 13  |
| BZX1.5C120 | 120                               | 114...127    | 2.1           | 380                        | 4500                     | 0.25          | 1                               | 91.2      | 12  |
| BZX1.5C130 | 130                               | 124...141    | 2.9           | 450                        | 5000                     | 0.25          | 1                               | 98.8      | 11  |
| BZX1.5C150 | 150                               | 138...156    | 2.5           | 600                        | 6000                     | 0.25          | 1                               | 114       | 10  |
| BZX1.5C160 | 160                               | 153...171    | 2.3           | 700                        | 6500                     | 0.25          | 1                               | 121.6     | 9   |
| BZX1.5C180 | 180                               | 168...191    | 2.1           | 900                        | 7000                     | 0.25          | 1                               | 136.8     | 8   |
| BZX1.5C200 | 200                               | 188...212    | 1.9           | 1200                       | 8000                     | 0.25          | 1                               | 152       | 7   |

<sup>1)</sup> Tested with pulse  $t_p = 20$  ms.

<sup>2)</sup> Valid provided that leads at a distance of 8mm from case are kept at ambient temperature.



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