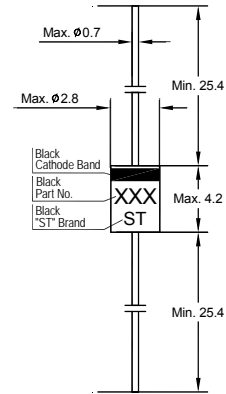


BZX1.5C

SILICON PLANAR ZENER DIODES



Glass Case DO-41
Dimensions in mm

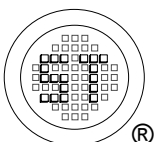
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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

¹⁾ 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 at $I_F = 200\text{ mA}$ | V_F | 1.2 | V |



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 71116



ISO 9001:2000
Certificate No. 0506098

Dated : 12/06/2007

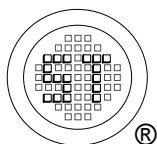
BZX1.5C

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

| Type | Zener Voltage Range ¹⁾ | | | Maximum Dynamic Resistance | | | Maximum Reverse Leakage Current | | Maximum DC Zener Current ²⁾ I_{ZM} (mA) |
|------------|-----------------------------------|--------------|---------------|----------------------------|--------------------------|---------------|---------------------------------|-----------|---|
| | V_{Znom} (V) | V_{ZT} (V) | I_{ZT} (mA) | (Ω) at I_{ZT} | (Ω) at I_{ZK} | I_{ZK} (mA) | I_R (μ 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 |

¹⁾ Tested with pulse $t_p = 20$ ms.

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



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 71116



ISO 9001:2000
Certificate No. 0506098