

# Zener Diodes

## BZX79C2V4 - BZX79C18

### ABSOLUTE MAXIMUM RATINGS (Note 1)

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

| Symbol         | Parameter                                                            | Value       | Unit                 |
|----------------|----------------------------------------------------------------------|-------------|----------------------|
| $P_D$          | Power Dissipation @ $T_L \leq 75^\circ\text{C}$ , Lead Length = 3/8" | 500         | mW                   |
|                | Derate above $75^\circ\text{C}$                                      | 4.0         | mW/ $^\circ\text{C}$ |
| $T_J, T_{STG}$ | Operating and Storage Temperature Range                              | -65 to +200 | $^\circ\text{C}$     |

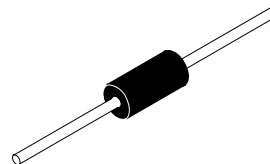
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. These ratings are limiting values above which the serviceability of the diode may be impaired.



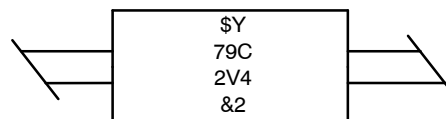
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**AXIAL LEAD  
CASE 017AG**

### MARKING DIAGRAM



|     |                            |
|-----|----------------------------|
| \$Y | = Logo                     |
| 79C | = Specific Device Code     |
| 2V4 | = Specific Device Code     |
| &2  | = 2-Digit Date Code Format |

### ORDERING INFORMATION

See detailed ordering and shipping information on page 3 of this data sheet.

# BZX79C2V4 – BZX79C18

**ELECTRICAL CHARACTERISTICS** Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

| Device                                                                                   | Zener Voltage (Note 2) |      |            | $Z_Z @ I_Z (\Omega)$ | Leakage Current |           | $T_C (mV/C)$ |      | $C (pF)$                     |
|------------------------------------------------------------------------------------------|------------------------|------|------------|----------------------|-----------------|-----------|--------------|------|------------------------------|
|                                                                                          | Min.                   | Max. | $I_Z (mA)$ | Max.                 | $I_R (\mu A)$   | $V_R (V)$ | Min.         | Max. | $V_Z = 0, f = 1 \text{ MHz}$ |
| BZX79C2V4                                                                                | 2.2                    | 2.6  | 5          | 100                  | 100             | 1         | -3.5         | 0    | 255                          |
| BZX79C2V7                                                                                | 2.5                    | 2.9  | 5          | 100                  | 75              | 1         | -3.5         | 0    | 230                          |
| BZX79C3V3                                                                                | 3.1                    | 3.5  | 5          | 95                   | 25              | 1         | -3.5         | 0    | 200                          |
| BZX79C3V6                                                                                | 3.4                    | 3.8  | 5          | 90                   | 15              | 1         | -3.5         | 0    | 185                          |
| BZX79C3V9                                                                                | 3.7                    | 4.1  | 5          | 90                   | 10              | 1         | -3.5         | +0.3 | 175                          |
| BZX79C4V3                                                                                | 4.0                    | 4.6  | 5          | 90                   | 5               | 1         | -3.5         | +1.0 | 160                          |
| BZX79C4V7                                                                                | 4.4                    | 5    | 5          | 80                   | 3               | 2         | -3.5         | +0.2 | 130                          |
| BZX79C5V1                                                                                | 4.8                    | 5.4  | 5          | 60                   | 2               | 2         | -2.7         | +1.2 | 110                          |
| BZX79C5V6                                                                                | 5.2                    | 6    | 5          | 40                   | 1               | 2         | -2           | +2.5 | 95                           |
| BZX79C6V2                                                                                | 5.8                    | 6.6  | 5          | 10                   | 3               | 4         | 0.4          | 3.7  | 90                           |
| BZX79C6V8                                                                                | 6.4                    | 7.2  | 5          | 15                   | 2               | 4         | 1.2          | 4.5  | 85                           |
| BZX79C7V5                                                                                | 7.0                    | 7.9  | 5          | 15                   | 1               | 5         | 2.5          | 5.3  | 80                           |
| BZX79C8V2                                                                                | 7.7                    | 8.7  | 5          | 15                   | 0.7             | 5         | 3.2          | 6.2  | 75                           |
| BZX79C9V1                                                                                | 8.5                    | 9.6  | 5          | 15                   | 0.5             | 6         | 3.8          | 7    | 70                           |
| BZX79C10                                                                                 | 9.4                    | 10.6 | 5          | 20                   | 0.2             | 7         | 4.5          | 8    | 70                           |
| BZX79C11                                                                                 | 10.4                   | 11.6 | 5          | 20                   | 0.1             | 8         | 5.4          | 9    | 65                           |
| BZX79C12                                                                                 | 11.4                   | 12.7 | 5          | 25                   | 0.1             | 8         | 6            | 10   | 65                           |
| BZX79C13                                                                                 | 12.4                   | 14.1 | 5          | 30                   | 0.1             | 8         | 7            | 11   | 60                           |
| BZX79C15                                                                                 | 13.8                   | 15.6 | 5          | 30                   | 0.05            | 10.5      | 9.2          | 13   | 55                           |
| BZX79C16                                                                                 | 15.3                   | 17.1 | 5          | 40                   | 0.05            | 11.2      | 10.4         | 14   | 52                           |
| BZX79C18                                                                                 | 16.8                   | 19.1 | 5          | 45                   | 0.05            | 12.6      | 12.9         | 16   | 47                           |
| <b><math>V_F</math> Forward Voltage = 1.2 V Max. @ <math>I_F = 200 \text{ mA}</math></b> |                        |      |            |                      |                 |           |              |      |                              |

2. Zener Voltage ( $V_Z$ ). The zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature ( $T_L$ ) at  $30^\circ\text{C} \pm 1^\circ\text{C}$  and 3/8" lead length.

## MARKING INFORMATION

| Device    | Line 1 | Line 2 | Line 3 |
|-----------|--------|--------|--------|
| BZX79C2V4 | LOGO   | 9C     | 2V4    |
| BZX79C2V7 |        |        | 2V7    |
| BZX79C3V3 |        |        | 3V3    |
| BZX79C3V6 |        |        | 3V6    |
| BZX79C3V9 |        |        | 3V9    |
| BZX79C4V3 |        |        | 4V3    |
| BZX79C4V7 |        |        | 4V7    |
| BZX79C5V1 |        |        | 5V1    |
| BZX79C5V6 |        |        | 5V6    |
| BZX79C6V2 |        |        | 6V2    |
| BZX79C6V8 |        |        | 6V8    |
| BZX79C7V5 |        |        | 7V5    |
| BZX79C8V2 |        |        | 8V2    |
| BZX79C9V1 |        |        | 9V1    |

## BZX79C2V4 – BZX79C18

### MARKING INFORMATION (continued)

| Device   | Line 1 | Line 2 | Line 3 |
|----------|--------|--------|--------|
| BZX79C10 | LOGO   | 9C     | 10     |
| BZX79C11 |        |        | 11     |
| BZX79C12 |        |        | 12     |
| BZX79C13 |        |        | 13     |
| BZX79C15 |        |        | 15     |
| BZX79C16 |        |        | 16     |
| BZX79C18 |        |        | 18     |

### ORDERING INFORMATION

| Part Number    | Package    | Shipping <sup>†</sup> |
|----------------|------------|-----------------------|
| BZX79C10       | Axial Lead | 5000 / Bulk Bag       |
| BZX79C10–T50A  |            | 5000 / Fan–Fold       |
| BZX79C11       |            | 5000 / Bulk Bag       |
| BZX79C11–T50A  |            | 5000 / Fan–Fold       |
| BZX79C12       |            | 5000 / Bulk Bag       |
| BZX79C12–T50A  |            | 5000 / Fan–Fold       |
| BZX79C13–T50A  |            | 5000 / Fan–Fold       |
| BZX79C15       |            | 5000 / Bulk Bag       |
| BZX79C15–T50A  |            | 5000 / Fan–Fold       |
| BZX79C15–T50R  |            | 5000 / Tape & Reel    |
| BZX79C16–T50A  |            | 5000 / Fan–Fold       |
| BZX79C18–T50A  |            | 5000 / Fan–Fold       |
| BZX79C2V4      |            | 5000 / Bulk Bag       |
| BZX79C2V4–T50A |            | 5000 / Fan–Fold       |
| BZX79C2V7      |            | 5000 / Bulk Bag       |
| BZX79C2V7–T50A |            | 5000 / Fan–Fold       |
| BZX79C3V3      |            | 5000 / Bulk Bag       |
| BZX79C3V3–T50A |            | 5000 / Fan–Fold       |
| BZX79C3V6      |            | 5000 / Bulk Bag       |
| BZX79C3V6–T50A |            | 5000 / Fan–Fold       |
| BZX79C3V9      |            | 5000 / Bulk Bag       |
| BZX79C3V9–T50A |            | 5000 / Fan–Fold       |
| BZX79C4V3      |            | 5000 / Bulk Bag       |
| BZX79C4V3–T50A |            | 5000 / Fan–Fold       |
| BZX79C4V7      |            | 5000 / Bulk Bag       |
| BZX79C4V7–T50A |            | 5000 / Fan–Fold       |
| BZX79C5V1      |            | 5000 / Bulk Bag       |
| BZX79C5V1–T50A |            | 5000 / Fan–Fold       |
| BZX79C5V6      |            | 5000 / Bulk Bag       |
| BZX79C5V6–T50A |            | 5000 / Fan–Fold       |
| BZX79C5V6TR    |            | 5000 / Tape & Reel    |
| BZX79C6V2      |            | 5000 / Bulk Bag       |

## BZX79C2V4 – BZX79C18

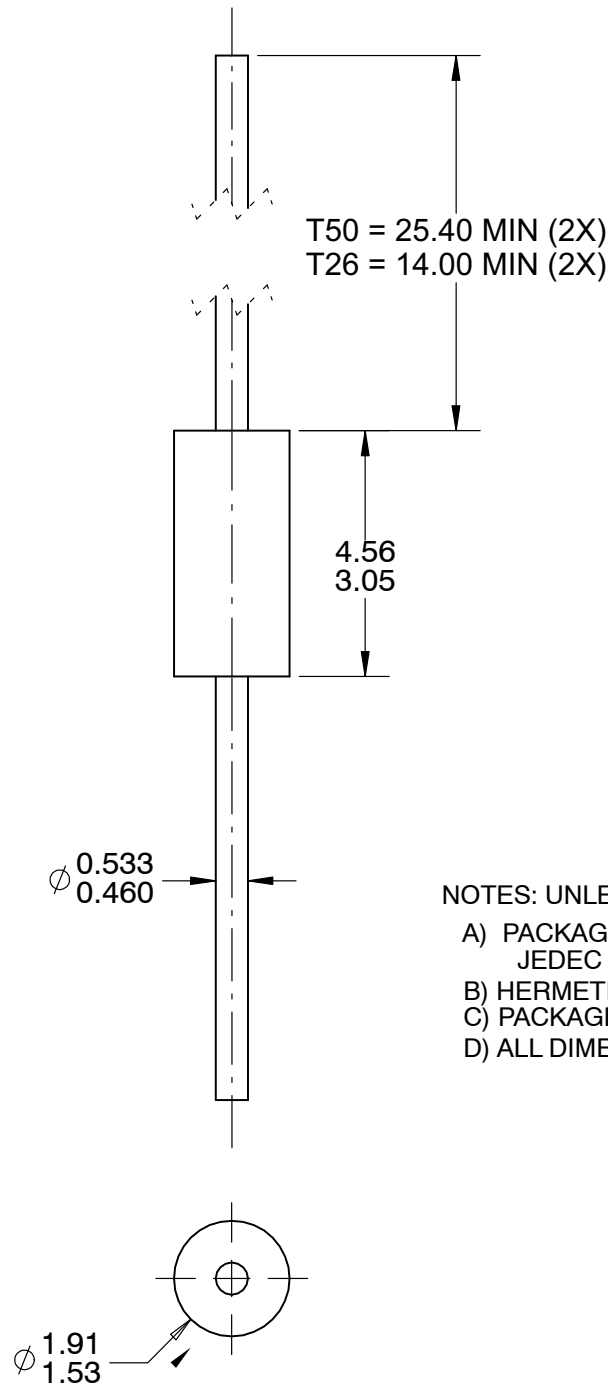
### ORDERING INFORMATION (continued)

| Part Number    | Package    | Shipping <sup>†</sup> |
|----------------|------------|-----------------------|
| BZX79C6V2–T50A | Axial Lead | 5000 / Fan–Fold       |
| BZX79C6V2–T50R |            | 5000 / Tape & Reel    |
| BZX79C6V8      |            | 5000 / Bulk Bag       |
| BZX79C6V8–T50A |            | 5000 / Fan–Fold       |
| BZX79C7V5–T50A |            | 5000 / Fan–Fold       |
| BZX79C8V2      |            | 5000 / Bulk Bag       |
| BZX79C8V2–T50A |            | 5000 / Fan–Fold       |
| BZX79C9V1      |            | 5000 / Bulk Bag       |
| BZX79C9V1–T50A |            | 5000 / Fan–Fold       |

<sup>†</sup>For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

**AXIAL LEAD**  
**CASE 017AG**  
**ISSUE O**

DATE 31 AUG 2016



**NOTES: UNLESS OTHERWISE SPECIFIED**

- A) PACKAGE STANDARD REFERENCE:  
JEDEC DO-204, VARIATION AH.
- B) HERMETICALLY SEALED GLASS PACKAGE.
- C) PACKAGE WEIGHT IS 0.137 GRAM.
- D) ALL DIMENSIONS ARE IN MILLIMETERS.

|                         |                    |                                                                                                                                                                                     |
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