

# Zener Diodes

## BZX85C10 - BZX85C16

### ABSOLUTE MAXIMUM RATINGS

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

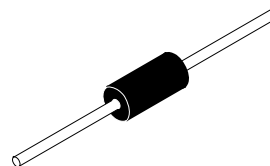
| Symbol         | Parameter                                                                            | Value       | Unit                 |
|----------------|--------------------------------------------------------------------------------------|-------------|----------------------|
| $P_D$          | Power Dissipation @ $T_A = 25^\circ\text{C}$                                         | 1.0         | W                    |
|                | Power Dissipation @ $T_L = 25^\circ\text{C}$ at 4 mm distance from the glass package | 1.3         |                      |
|                | Derate above $50^\circ\text{C}$                                                      | 6.67        | mW/ $^\circ\text{C}$ |
| $T_J, T_{STG}$ | Operating Junction 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.



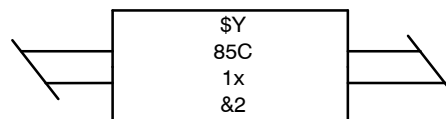
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**AXIAL LEAD / DO-41  
CASE 017AH**

### MARKING DIAGRAM



|       |                            |
|-------|----------------------------|
| $\$Y$ | = Logo                     |
| 85C   | = Specific Device Code     |
| 1x    | = Specific Device Code     |
|       | x = 0, 1, 2, 3, 5, 6       |
| &2    | = 2-Digit Date Code Format |

### ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

## BZX85C10 – BZX85C16

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

| Device                                                                           | Zener Voltage (Note 1) |      |       | Zener Impedance |                   |      | Leakage Current    |      |
|----------------------------------------------------------------------------------|------------------------|------|-------|-----------------|-------------------|------|--------------------|------|
|                                                                                  | $V_Z$ (V)              |      | $I_Z$ | $Z_Z @ I_Z$     | $Z_{ZK} @ I_{ZK}$ |      | $I_R @ V_R$        |      |
|                                                                                  | Min.                   | Max. | mA    | ( $\Omega$ )    | ( $\Omega$ )      | (mA) | $\mu\text{A Max.}$ | V    |
| BZX85C10                                                                         | 9.4                    | 10.6 | 25    | 7               | 200               | 0.5  | 0.5                | 7    |
| BZX85C11                                                                         | 10.4                   | 11.6 | 20    | 8               | 300               | 0.5  | 0.5                | 7.7  |
| BZX85C12                                                                         | 11.4                   | 12.7 | 20    | 9               | 350               | 0.5  | 0.5                | 8.4  |
| BZX85C13                                                                         | 12.4                   | 14.1 | 20    | 10              | 400               | 0.5  | 0.5                | 9.1  |
| BZX85C15                                                                         | 13.8                   | 15.6 | 15    | 15              | 500               | 0.5  | 0.5                | 10.5 |
| BZX85C16                                                                         | 15.3                   | 17.1 | 15    | 15              | 500               | 0.5  | 0.5                | 11   |
| <b><math>V_F</math> Forward Voltage = 1.2 V Max. @ <math>I_F = 200</math> mA</b> |                        |      |       |                 |                   |      |                    |      |

1. 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 | Line 4 | Line 5 |
|----------|--------|--------|--------|--------|--------|
| BZX85C10 | LOGO   | 85C    | 10     |        | XY     |
| BZX85C11 |        |        | 11     |        |        |
| BZX85C12 |        |        | 12     |        |        |
| BZX85C13 |        |        | 13     |        |        |
| BZX85C15 |        |        | 15     |        |        |
| BZX85C16 |        |        | 16     |        |        |

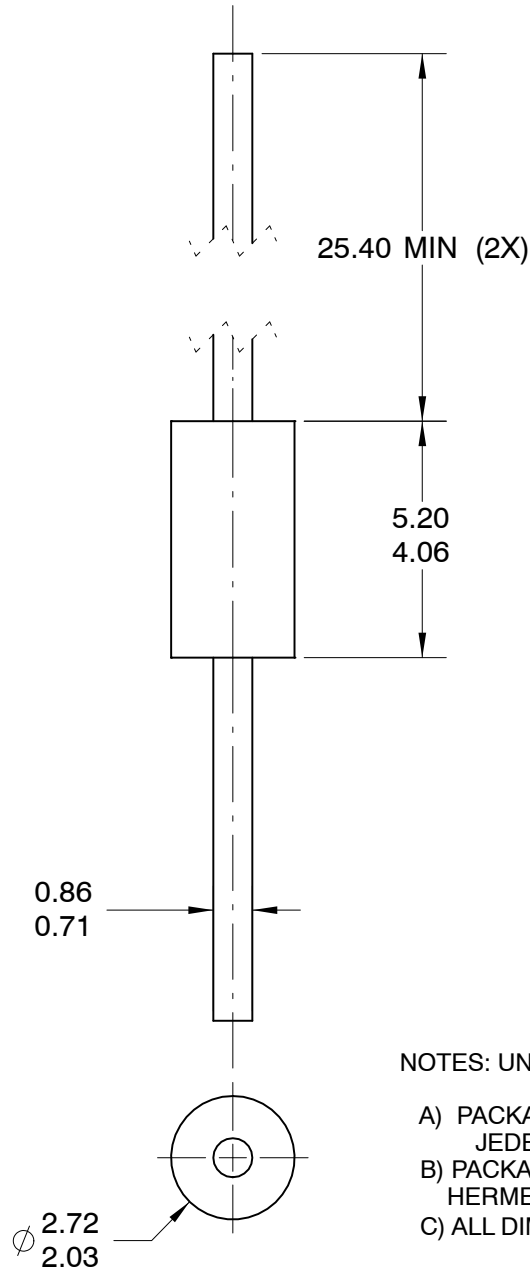
### ORDERING INFORMATION

| Part Number   | Package            | Shipping <sup>†</sup> |
|---------------|--------------------|-----------------------|
| BZX85C10      | Axial Lead / DO-41 | 3000 / Bulk Bag       |
| BZX85C10-T50R |                    | 3000 / Tape & Reel    |
| BZX85C11      |                    | 3000 / Bulk Bag       |
| BZX85C12      |                    | 3000 / Bulk Bag       |
| BZX85C12-T50R |                    | 3000 / Tape & Reel    |
| BZX85C13      |                    | 3000 / Bulk Bag       |
| BZX85C15      |                    | 3000 / Bulk Bag       |
| BZX85C15-T50A |                    | 3000 / Fan-Fold       |
| BZX85C15-T50R |                    | 3000 / Tape & Reel    |
| BZX85C16      |                    | 3000 / Bulk Bag       |

<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 / DO-41**  
CASE 017AH  
ISSUE O

DATE 31 AUG 2016



**NOTES: UNLESS OTHERWISE SPECIFIED**

- A) PACKAGE STANDARD REFERENCE:  
JEDEC DO-204 VARIATION AL.
- B) PACKAGE BODY CAN BE PLASTIC OR  
HERMETICALLY SEALED GLASS.
- C) ALL DIMENSIONS ARE IN MILLIMETERS.

|                         |                           |                                                                                                                                                                                     |
|-------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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