

# Zener Diodes

## BZX85C10 - BZX85C16

### ABSOLUTE MAXIMUM RATINGS

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

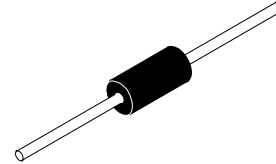
Symbol	Parameter	Value	Unit
$P_D$	Power Dissipation @ $T_A = 25^\circ\text{C}$	1.0	W
	Power Dissipation @ $T_L = 25^\circ\text{C}$ at 4 mm distance from the glass package	1.3	
	Derate above $50^\circ\text{C}$	6.67	mW/ $^\circ\text{C}$
$T_J, T_{STG}$	Operating Junction Temperature Range	-65 to +200	$^\circ\text{C}$

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.



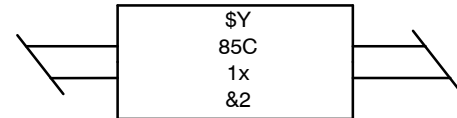
ON Semiconductor®

[www.onsemi.com](http://www.onsemi.com)



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

**$V_F$  Forward Voltage = 1.2 V Max. @  $I_F = 200$  mA**

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		

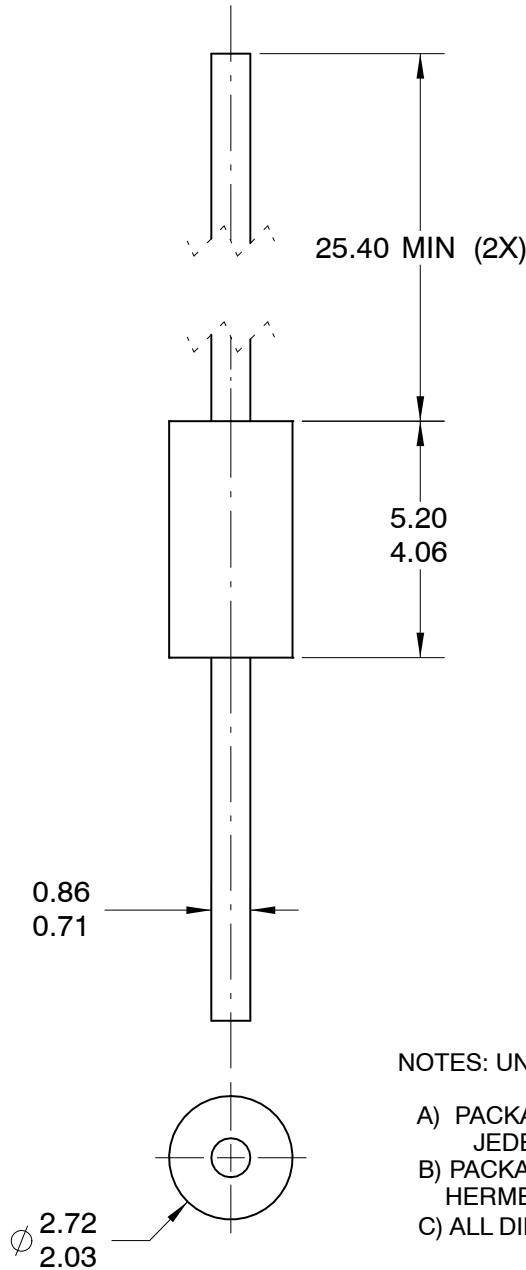
### ORDERING INFORMATION

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.

<b>DOCUMENT NUMBER:</b>	<b>98AON13444G</b>	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
<b>DESCRIPTION:</b>	<b>AXIAL LEAD / DO-41</b>	<b>PAGE 1 OF 1</b>

ON Semiconductor and  are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. ON Semiconductor does not convey any license under its patent rights nor the rights of others.

**onsemi**, **Onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at [www.onsemi.com/site/pdf/Patent-Marking.pdf](http://www.onsemi.com/site/pdf/Patent-Marking.pdf). **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

## PUBLICATION ORDERING INFORMATION

### LITERATURE FULFILLMENT:

Email Requests to: [orderlit@onsemi.com](mailto:orderlit@onsemi.com)

**onsemi Website:** [www.onsemi.com](http://www.onsemi.com)

### TECHNICAL SUPPORT

**North American Technical Support:**

Voice Mail: 1 800-282-9855 Toll Free USA/Canada

Phone: 011 421 33 790 2910

**Europe, Middle East and Africa Technical Support:**

Phone: 00421 33 790 2910

For additional information, please contact your local Sales Representative

