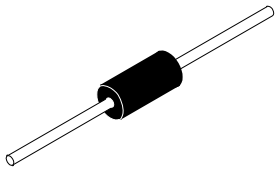
Zener Diodes

1N4728A - 1N4758A



AXIAL LEAD
CASE 017AH

ABSOLUTE MAXIMUM RATINGS (Note 1)

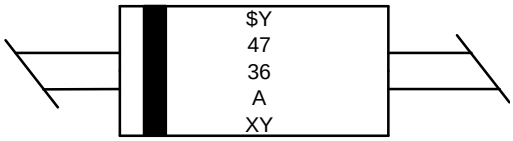
T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Unit
P_D	Power Dissipation @ TL ≤ 50°C, Lead Length = 3/8″	1.0	W
	Derate above 50°C	6.67	mW/°C
T_J, T_{STG}	Operating and Storage Temperature Range	−65 to +200	°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.

MARKING DIAGRAM



$Y	= Logo
4736A	= Specific Device Code
XY	= Date Code

ORDERING INFORMATION

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

© Semiconductor Components Industries, LLC, 2009

ELECTRICAL CHARACTERISTICS T_a = 25°C unless otherwise noted

Device	V_Z (V) @ I_Z (Note 2)			Test Current I_Z (mA)	Max. Zener Impedance			Leakage Current		Non−Repetitive Peak Reverse Current I_{ZSM} (mA) (Note 3)
	Min.	Typ.	Max.		Z_Z @ I_Z (Ω)	Z_{ZK} @ I_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)	
1N4728A	3.135	3.3	3.465	76	10	400	1	100	1	1380
1N4732A	4.465	4.7	4.935	53	8	500	1	10	1	970
1N4733A	4.845	5.1	5.355	49	7	550	1	10	1	890
1N4734A	5.32	5.6	5.88	45	5	600	1	10	2	810
1N4735A	5.89	6.2	6.51	41	2	700	1	10	3	730
1N4736A	6.46	6.8	7.14	37	3.5	700	1	10	4	660
1N4737A	7.125	7.5	7.875	34	4	700	0.5	10	5	605
1N4738A	7.79	8.2	8.61	31	4.5	700	0.5	10	6	550
1N4739A	8.645	9.1	9.555	28	5	700	0.5	10	7	500
1N4740A	9.5	10	10.5	25	7	700	0.25	10	7.6	454
1N4741A	10.45	11	11.55	23	8	700	0.25	5	8.4	414
1N4742A	11.4	12	12.6	21	9	700	0.25	5	9.1	380
1N4743A	12.35	13	13.65	19	10	700	0.25	5	9.9	344
1N4744A	14.25	15	15.75	17	14	700	0.25	5	11.4	304
1N4745A	15.2	16	16.8	15.5	16	700	0.25	5	12.2	285
1N4746A	17.1	18	18.9	14	20	750	0.25	5	13.7	250
1N4747A	19	20	21	12.5	22	750	0.25	5	15.2	225
1N4748A	20.9	22	23.1	11.5	23	750	0.25	5	16.7	205
1N4749A	22.8	24	25.2	10.5	25	750	0.25	5	18.2	190
1N4750A	25.65	27	28.35	9.5	35	750	0.25	5	20.6	170
1N4751A	28.5	30	31.5	8.5	40	1000	0.25	5	22.8	150
1N4752A	31.35	33	34.65	7.5	45	1000	0.25	5	25.1	135
1N4753A	34.2	36	37.8	7	50	1000	0.25	5	27.4	125
1N4754A	37.05	39	40.95	6.5	60	1000	0.25	5	29.7	115
1N4755A	40.85	43	45.15	6	70	1500	0.25	5	32.7	110
1N4756A	44.65	47	49.35	5.5	80	1500	0.25	5	35.8	95
1N4757A	48.45	51	53.55	5	95	1500	0.25	5	38.8	90
1N4758A	53.2	56	58.8	4.5	110	2000	0.25	5	42.6	80

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

NOTES:

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°C ±1°C and 3/8″ lead length.
3. 2 Square wave Reverse Surge at 8.3 ms soak time.

Share Feedback
Your Opinion Matters

TOP MARKING AND ORDERING INFORMATION

Device	Top Marking					Package	Shipping†
	Line 1	Line 2	Line 3	Line 4	Line 5		
1N4728A	LOGO	47	28	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Bulk Bag
1N4728A−T50A							3000 / Fan−Fold
1N4728ATR							3000 / Tape and Reel
1N4732A			32				3000 / Bulk Bag
1N4732A−T50A							3000 / Fan−Fold
1N4732ATR							3000 / Tape and Reel
1N4733A			33				3000 / Bulk Bag
1N4733A−T50A							3000 / Fan−Fold
1N4733A−T50R							3000 / Tape and Reel
1N4733ATR							3000 / Tape and Reel
1N4734A			34				3000 / Bulk Bag
1N4734A−T50A							3000 / Fan−Fold
1N4734A−T50R							3000 / Tape and Reel
1N4734ATR							3000 / Tape and Reel
1N4735A			35				3000 / Bulk Bag
1N4735A−T50A							3000 / Fan−Fold
1N4735A−T50R							3000 / Tape and Reel
1N4735ATR							3000 / Tape and Reel
1N4736A			36				3000 / Bulk Bag
1N4736A−T50A							3000 / Fan−Fold
1N4736A−T50R							3000 / Tape and Reel
1N4736ATR							3000 / Tape and Reel
1N4737A			37				3000 / Bulk Bag
1N4737A−T50A							3000 / Fan−Fold
1N4737ATR							3000 / Tape and Reel
1N4738A			38				3000 / Bulk Bag
1N4738A−T50A							3000 / Fan−Fold
1N4738A−T50R							3000 / Tape and Reel
1N4738ATR							3000 / Tape and Reel
1N4739A			39				3000 / Bulk Bag
1N4739A−T50A							3000 / Fan−Fold
1N4739ATR							3000 / Tape and Reel
1N4740A			40				3000 / Bulk Bag
1N4740A−T50A							3000 / Fan−Fold
1N4740ATR							3000 / Tape and Reel
1N4741A			41				3000 / Bulk Bag
1N4741A−T50A							3000 / Fan−Fold
1N4741ATR							3000 / Tape and Reel
1N4742A			42				3000 / Bulk Bag
1N4742A−T50A							3000 / Fan−Fold
1N4742ATR							3000 / Tape and Reel

Share Feedback
Your Opinion Matters

TOP MARKING AND ORDERING INFORMATION (continued)

Device	Top Marking					Package	Shipping†
	Line 1	Line 2	Line 3	Line 4	Line 5		
1N4743A	LOGO	47	43	A	XY	Axial Lead (Pb − Free / Halide Free)	3000 / Bulk Bag
1N4743A−T50A							3000 / Fan−Fold
1N4743ATR							3000 / Tape and Reel
1N4744A			44				3000 / Bulk Bag
1N4744A−T50A							3000 / Fan−Fold
1N4744A−T50R							3000 / Tape and Reel
1N4744ATR							3000 / Tape and Reel
1N4745A			45				3000 / Bulk Bag
1N4745A−T50A							3000 / Fan−Fold
1N4745ATR							3000 / Tape and Reel
1N4746A			46				3000 / Bulk Bag
1N4746A−T50A							3000 / Fan−Fold
1N4746ATR							3000 / Tape and Reel
1N4747A			47				3000 / Bulk Bag
1N4747A−T50A							3000 / Fan−Fold
1N4747ATR							3000 / Tape and Reel
1N4748A			48				3000 / Bulk Bag
1N4748A−T50A							3000 / Fan−Fold
1N4748ATR							3000 / Tape and Reel
1N4749A			49				3000 / Bulk Bag
1N4749A−T50A							3000 / Fan−Fold
1N4749A−T50R							3000 / Tape and Reel
1N4749ATR							3000 / Tape and Reel
1N4750A			50				3000 / Bulk Bag
1N4750A−T50A							3000 / Fan−Fold
1N4750ATR							3000 / Tape and Reel
1N4751A			51				3000 / Bulk Bag
1N4751A−T50A							3000 / Fan−Fold
1N4751ATR							3000 / Tape and Reel
1N4752A			52				3000 / Bulk Bag
1N4752A−T50A							3000 / Fan−Fold
1N4752ATR							3000 / Tape and Reel
1N4753A			53				3000 / Bulk Bag
1N4753A−T50A							3000 / Fan−Fold
1N4754A			54				3000 / Bulk Bag
1N4754A−T50A							3000 / Fan−Fold
1N4755A			55				3000 / Bulk Bag
1N4755A−T50A							3000 / Fan−Fold
1N4756A			56				3000 / Bulk Bag
1N4757A			57				3000 / Bulk Bag

Share Feedback
Your Opinion Matters

TOP MARKING AND ORDERING INFORMATION (continued)

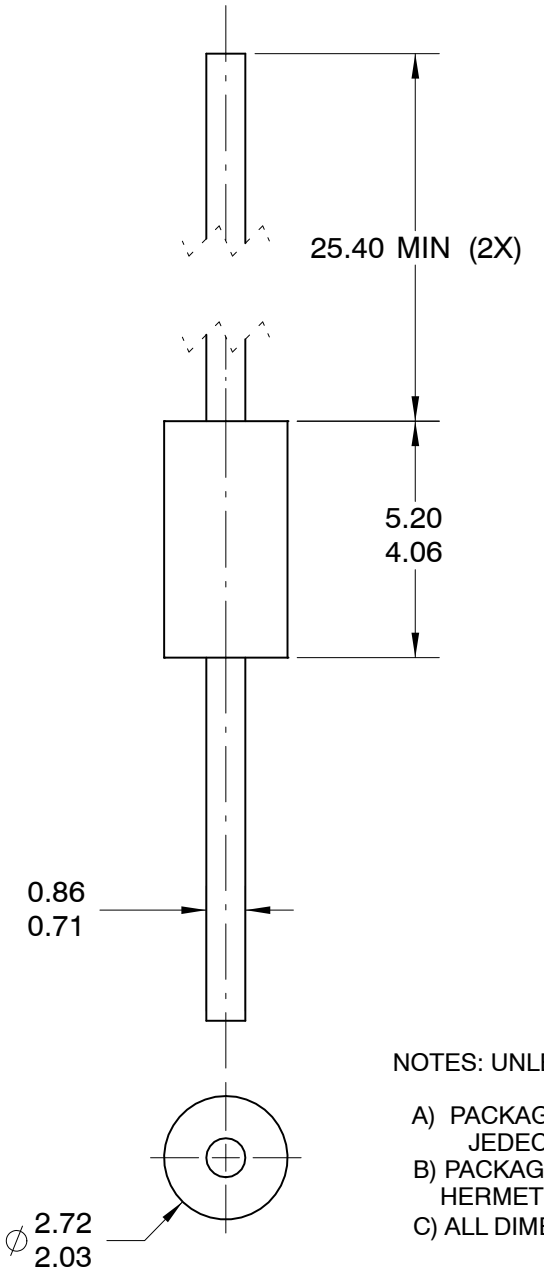
Device	Top Marking					Package	Shipping†
	Line 1	Line 2	Line 3	Line 4	Line 5		
1N4758A	LOGO	47	58	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Bulk Bag
1N4758A−T50A							3000 / Fan−Fold

†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.

Share Feedback
Your Opinion Matters

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.

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

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba **onsemi** or its subsidiaries in the United States and/or other countries. **onsemi** reserves the right to make changes without further notice to any products herein. **onsemi** makes no warranty, representation or guarantee regarding the 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. **onsemi** 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. **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.

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:
Technical Library: www.onsemi.com/design/resources/technical−documentation
onsemi Website: www.onsemi.com

ONLINE SUPPORT: www.onsemi.com/support
For additional information, please contact your local Sales Representative at
www.onsemi.com/support/sales