



**THE DATASHEET OF  
1N4746A**



# Zener Diodes

## 1N4728A - 1N4758A

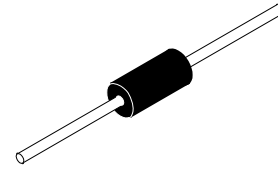
### ABSOLUTE MAXIMUM RATINGS (Note 1)

T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Unit
P <sub>D</sub>	Power Dissipation @ TL ≤ 50°C, Lead Length = 3/8"	1.0	W
	Derate above 50°C	6.67	mW/°C
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Temperature Range	-65 to +200	°C

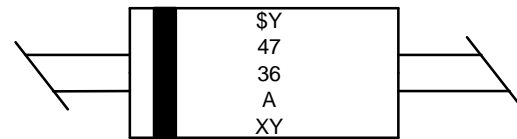
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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



AXIAL LEAD  
CASE 017AH

### 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.

# 1N4728A – 1N4758A

**ELECTRICAL CHARACTERISTICS**  $T_a = 25^\circ\text{C}$  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.		$Z_Z$ @ $I_Z$ ( $\Omega$ )	$Z_{ZK}$ @ $I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	$V_R$ (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  $30^\circ\text{C} \pm 1^\circ\text{C}$  and 3/8" lead length.
3. 2 Square wave Reverse Surge at 8.3 ms soak time.

# 1N4728A – 1N4758A

## 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

# 1N4728A – 1N4758A

## 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				45	44	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Bulk Bag																												
1N4744A–T50A												3000 / Fan–Fold																												
1N4744A–T50R												3000 / Tape and Reel																												
1N4744ATR			45					46				45	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Tape and Reel																								
1N4745A																3000 / Bulk Bag																								
1N4745A–T50A																3000 / Fan–Fold																								
1N4745ATR			46									47				46	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Tape and Reel																				
1N4746A																				3000 / Bulk Bag																				
1N4746A–T50A																				3000 / Fan–Fold																				
1N4746ATR			47													48				47	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Tape and Reel																
1N4747A																								3000 / Bulk Bag																
1N4747A–T50A																								3000 / Fan–Fold																
1N4747ATR			48																	49				48	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Tape and Reel												
1N4748A																												3000 / Bulk Bag												
1N4748A–T50A																												3000 / Fan–Fold												
1N4748ATR			49																					50				49	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Tape and Reel								
1N4749A																																3000 / Bulk Bag								
1N4749A–T50A																																3000 / Fan–Fold								
1N4749A–T50R			50																									51				50	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Tape and Reel				
1N4749ATR																																				3000 / Tape and Reel				
1N4750A																																				3000 / Bulk Bag				
1N4750A–T50A			51																													52				51	A	XY	Axial Lead (Pb – Free / Halide Free)	3000 / Fan–Fold
1N4750ATR																																								3000 / Tape and Reel
1N4751A																																								3000 / Bulk Bag
1N4751A–T50A	52	53	52	A	XY	Axial Lead (Pb – Free / Halide Free)																														3000 / Fan–Fold				
1N4751ATR																																				3000 / Tape and Reel				
1N4752A																																				3000 / Bulk Bag				
1N4752A–T50A	53		54				53		A	XY	Axial Lead (Pb – Free / Halide Free)																									3000 / Fan–Fold				
1N4752ATR																																				3000 / Tape and Reel				
1N4753A																																				3000 / Bulk Bag				
1N4753A–T50A	54						55	54					A	XY	Axial Lead (Pb – Free / Halide Free)																					3000 / Fan–Fold				
1N4754A																																				3000 / Bulk Bag				
1N4754A–T50A																																				3000 / Fan–Fold				
1N4755A	55							56				55					A	XY	Axial Lead (Pb – Free / Halide Free)																	3000 / Bulk Bag				
1N4755A–T50A																																				3000 / Fan–Fold				
1N4756A																																				3000 / Bulk Bag				
1N4757A	56											57				56					A	XY	Axial Lead (Pb – Free / Halide Free)													3000 / Bulk Bag				
1N4757A																																				3000 / Bulk Bag				
1N4757A																																				3000 / Bulk Bag				

# 1N4728A – 1N4758A

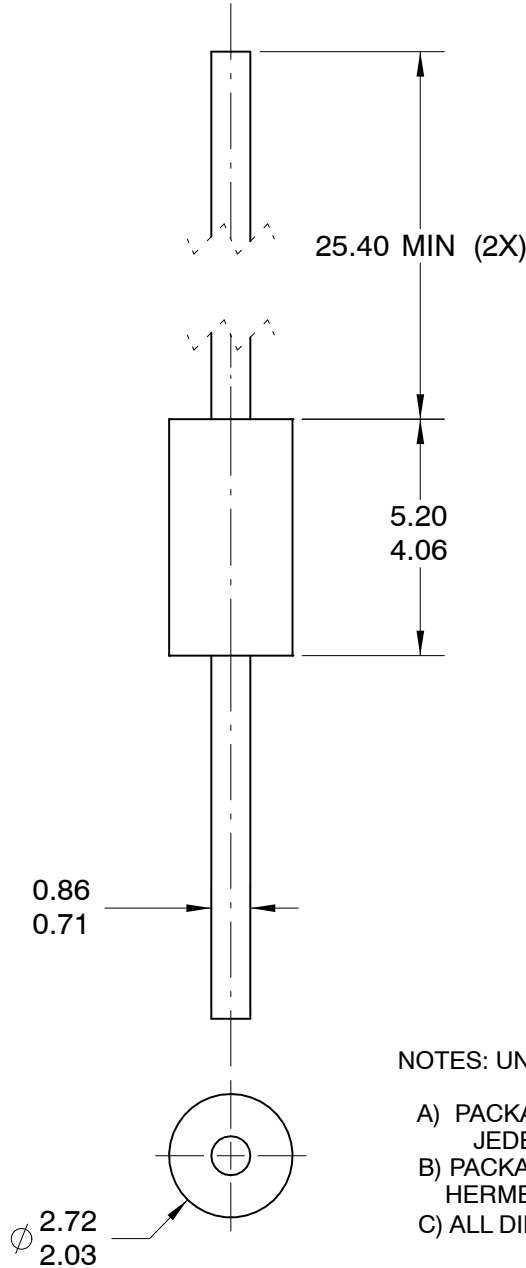
## TOP MARKING AND ORDERING INFORMATION (continued)

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.

**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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