

1N4728UR-1 thru 1N4764UR-1

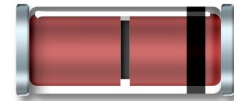
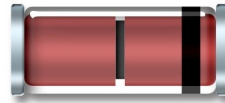


1W Surface Mount Zener Diode Series

Rev. V1

Features

- Hermetic Glass DO-213AB Package
- Double Plug Construction
- Metallurgically Bonded
- Available in JAN - JANTXV Equivalents



Electrical Specifications: $T_A = +25^\circ\text{C}$ (unless otherwise specified)

TYPE NUMBER (Note 1)	NOMINAL ZENER VOLTAGE V_Z	ZENER TEST CURRENT I_{ZT}	Z_{ZT} @ I_{ZT}	MAXIMUM REVERSE LEAKAGE CURRENT I_R @ V_R		MAXIMUM DC ZENER CURRENT I_{ZM}
	VOLTS	mA	Ω	μA	VOLTS	mA
1N4728UR-1	3.3	76	10	100	1.0	276
1N4729UR-1	3.6	69	10	100	1.0	252
1N4730UR-1	3.9	64	9	50	1.0	234
1N4731UR-1	4.3	58	9	10	1.0	217
1N4732UR-1	4.7	53	8	10	1.0	193
1N4733UR-1	5.1	49	7	10	1.0	178
1N4734UR-1	5.6	45	5	10	2.0	162
1N4735UR-1	6.2	41	2	10	3.0	146
1N4736UR-1	6.8	37	3.5	10	4.0	133
1N4737UR-1	7.5	34	4.0	10	5.0	121
1N4738UR-1	8.2	31	4.5	10	6.0	110
1N4739UR-1	9.1	28	5.0	10	7.0	100
1N4740UR-1	10	25	7	10	7.6	91
1N4741UR-1	11	23	8	5	8.4	83
1N4742UR-1	12	21	9	5	9.1	76
1N4743UR-1	13	19	14	5	9.9	69
1N4744UR-1	15	17	16	5	11.4	61
1N4745UR-1	16	15.5	20	5	12.2	57
1N4746UR-1	18	14	22	5	13.7	50
1N4747UR-1	20	12.5	23	5	15.2	45
1N4748UR-1	22	11.5	25	5	16.7	41
1N4749UR-1	24	10.5	35	5	18.2	38

(Continued next page)

1N4728UR-1 thru 1N4764UR-1



1W Surface Mount Zener Diode Series

Rev. V1

Electrical Specifications: $T_A = +25^\circ\text{C}$ (unless otherwise specified)

TYPE NUMBER (Note 1)	NOMINAL ZENER VOLTAGE V_Z	ZENER TEST CURRENT I_{ZT}	$Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE LEAKAGE CURRENT $I_R @ V_R$		MAXIMUM DC ZENER CURRENT I_{ZM}
	VOLTS	μA	Ω	μA	VOLTS	mA
1N4750UR-1	27	9.5	35	5	20.6	34
1N4751UR-1	30	8.5	40	5	22.8	30
1N4752UR-1	33	7.5	45	5	25.1	27
1N4753UR-1	36	7	50	5	27.4	25
1N4754UR-1	39	6.5	60	5	29.7	23
1N4755UR-1	43	6	70	5	32.7	22
1N4756UR-1	47	5.5	80	5	35.8	19
1N4757UR-1	51	5	95	5	38.8	18
1N4758UR-1	56	4.5	110	5	42.6	16
1N4759UR-1	62	4	125	5	47.1	14
1N4760UR-1	68	3.7	150	5	51.7	13
1N4761UR-1	75	3.3	175	5	56.0	12
1N4762UR-1	82	3.0	200	5	62.2	11
1N4763UR-1	91	2.8	250	5	69.2	10
1N4764UR-1	100	2.5	350	5	76.0	9

- The JEDEC type numbers shown above have a standard tolerance of +/- 5% of the nominal Zener voltage. C suffix signifies 2% tolerance, D suffix signifies 1% tolerance. V_Z is measured with the diode in thermal equilibrium at $25^\circ\text{C} + 3^\circ\text{C}$.
- The Zener impedance is derived from the 60Hz ac voltage, which results when an ac current having an rms value equal to 10% of the DC Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} . Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and eliminate unstable units.
- The reverse surge current is measured at 25°C ambient using a 1/2 square wave or equivalent sine wave pulse 1/120 second duration superimposed on I_{ZT} .

Absolute Maximum Ratings

Parameter	Symbol	Absolute Maximum
Steady State Power Dissipation ⁽⁵⁾	P_D	1W @ $+25^\circ\text{C}$
Forward Voltage	V_F	1.2V @ $I_F = 200 \text{ mA}$
Thermal Resistance Junction to End Cap ⁽⁴⁾	$R_{\theta JEC}$	40 $^\circ\text{C/W}$
Thermal Resistance Junction to Ambient ⁽⁴⁾	$R_{\theta JA}$	120 $^\circ\text{C/W}$
Operating & Storage Temperature	T_{OP}, T_{STG}	-65°C to $+175^\circ\text{C}$
Solder Temperature 10 s (max)	T_{SP}	260 $^\circ\text{C}$

- When mounted on FR5 PC board (1 oz Cu) with recommended footprint
- 1W at $T_{EC} \leq 135^\circ\text{C}$, or 1W at $T_A \leq 55^\circ\text{C}$ when mounted on FR4 PC board with recommended footprint.

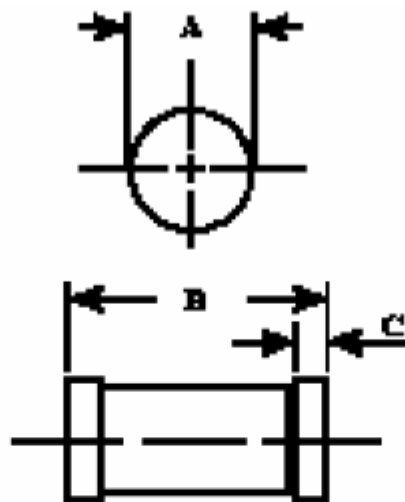
1N4728UR-1 thru 1N4764UR-1



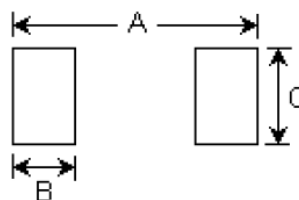
1W Surface Mount Zener Diode Series

Rev. V1

Outline Drawing (DO-213AB)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.094	0.105	2.39	2.66
B	0.189	0.205	4.80	5.20
C	0.016	0.022	0.41	0.55



PAD LAYOUT

	INCHES	mm
A	.276	7.00
B	0.070	1.8
C	0.110	2.8

1N4728UR-1 thru 1N4764UR-1



1W Surface Mount Zener Diode Series

Rev. V1

VPT COMPONENTS. ALL RIGHTS RESERVED.

Information in this document is provided in connection with VPT Components products. These materials are provided by VPT Components as a service to its customers and may be used for informational purposes only. Except as provided in VPT Components Terms and Conditions of Sale for such products or in any separate agreement related to this document, VPT Components assumes no liability whatsoever. VPT Components assumes no responsibility for errors or omissions in these materials. VPT Components may make changes to specifications and product descriptions at any time, without notice. VPT Components makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF VPT COMPONENTS PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. VPT COMPONENTS FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. VPT COMPONENTS SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

VPT Components products are not intended for use in medical, lifesaving or life sustaining applications. VPT Components customers using or selling VPT Components products for use in such applications do so at their own risk and agree to fully indemnify VPT Components for any damages resulting from such improper use or sale.