

500mW Zener

Qualified per MIL-PRF-19500/533

DESCRIPTION:

This voidless hermetically sealed zener is military qualified per MIL-PRF-19500/533 and is targeted for space, commercial and military aircraft, military vehicles, shipboard markets and all high reliability applications.

FEATURES / BENEFITS:

- ✓ Hermetic, non-cavity glass package
- ✓ Category I Metallurgically bonded
- ✓ All devices are 100% hot solder dipped
- ✓ JAN/ JANTX/JANTXV available per MIL-PRF-19500/533
- ✓ "JANS Plus" removes atypical/out of family V_z

MAXIMUM RATINGS

- ✓ All ratings are @ $T_c = 25\text{ }^\circ\text{C}$ unless otherwise specified
- ✓ Operating $-55\text{ }^\circ\text{C}$ to $+175\text{ }^\circ\text{C}$ and storage $-65\text{ }^\circ\text{C}$ to $+175\text{ }^\circ\text{C}$

**Sensitron equivalent diodes are manufactured and screened to MIL-PRF-19500 flow and guidelines starting from wafer fabrication through assembly and testing using our specification 7700-4093.*

**TECHNICAL DATA
DATA SHEET 5102, REV. B.3**

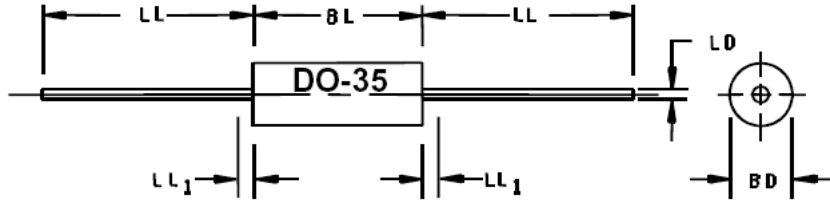
ELECTRICAL CHARACTERISTICS

Type	VZ2 nom at IZ2	VZ1 IZ1 250 μ A	IZ2 test current	ZZT at IZ2	ZZK at 250 μ A	IZM	VZ(reg)	VR	IR1 at +25° C	IR2 at TA = +150°C	α vz
	V	minV	mA	Ω	Ω	mA	V	V	μ A	μ A	%/°C
1N6319	6.2	5.2	20	3	800	68	0.30	3.5	5	10	+0.060
1N6320	6.8	6.0	20	3	400	63	0.35	4.0	2	50	+0.062
1N6321	7.5	6.6	20	4	400	57	0.40	5.0	2	30	+0.068
1N6322	8.2	7.5	20	5	400	52	0.40	6.0	1	10	+0.075
1N6323	9.1	8.4	20	6	500	47	0.50	7.0	1.00	10	+0.076
1N6324	10.0	9.1	20	6	500	43	0.50	8.0	1.00	10	+0.079
1N6325	11.0	10.0	20	7	550	39	0.50	8.5	1.00	10	+0.082
1N6326	12.0	11.0	20	7	550	35	0.55	9.0	1.00	10	+0.083
1N6327	13.0	11.9	9.5	8	550	33	0.55	9.9	0.05	10	+0.083
1N6328	15.0	13.8	8.5	10	600	28	0.70	11.0	0.05	10	+0.084
1N6329	16.0	14.7	7.8	12	600	27	0.75	12.0	0.05	10	+0.084
1N6330	18.0	16.6	7.0	14	600	24	0.85	14.0	0.05	10	+0.085
1N6331	20.0	18.5	6.2	18	500	21	0.95	15.0	0.05	10	+0.086
1N6332	22.0	20.4	5.6	20	500	19	1.05	17.0	0.05	10	+0.087
1N6333	24.0	22.3	5.2	24	500	18	1.15	18.0	0.05	10	+0.088
1N6334	27.0	25.2	4.6	27	500	16	1.30	21.0	0.05	10	+0.090
1N6335	30.0	28.0	4.2	32	500	14	1.45	23.0	0.05	10	+0.091
1N6336	33.0	30.9	3.8	40	600	13	1.60	25.0	0.05	10	+0.092
1N6337	36.0	33.7	3.4	50	600	12.0	1.75	27.0	0.05	10	+0.093
1N6338	39.0	36.6	3.2	55	700	11.0	1.90	30	0.05	10	+0.094
1N6339	43.0	40.4	3.0	65	800	9.9	2.10	33	0.05	10	+0.095
1N6340	47.0	44.2	2.7	75	900	9.0	2.25	36	0.05	10	+0.095
1N6341	51.0	48.0	2.5	85	1000	8.3	2.50	39	0.05	10	+0.096
1N6342	56.0	52.7	2.2	100	1200	7.6	2.70	43	0.05	10	+0.097
1N6343	62.0	58.4	2.0	125	1300	6.8	2.90	47	0.05	10	+0.098
1N6344	68.0	64.1	1.8	155	1500	6.3	3.20	52	0.05	10	+0.101
1N6345	75.0	70.8	1.7	180	1600	5.7	3.40	56	0.05	10	+0.103
1N6346	82.0	77.4	1.5	220	1800	5.2	3.80	62	0.05	10	+0.105
1N6347	91.0	86.0	1.4	270	2100	4.7	4.20	69	0.05	10	+0.108
1N6348	100.0	94.5	1.3	340	2400	4.3	4.40	76	0.05	10	+0.110
1N6349	110.0	104.0	1.1	500	2800	3.9	4.80	84	0.05	10	+0.110
1N6350	120.0	113.0	1.0	600	3200	3.5	5.20	91	0.05	10	+0.110
1N6351	130.0	122.0	0.95	850	4100	3.3	5.60	99	0.05	10	+0.110

PACKAGE DIMENSIONS (inches/mm)

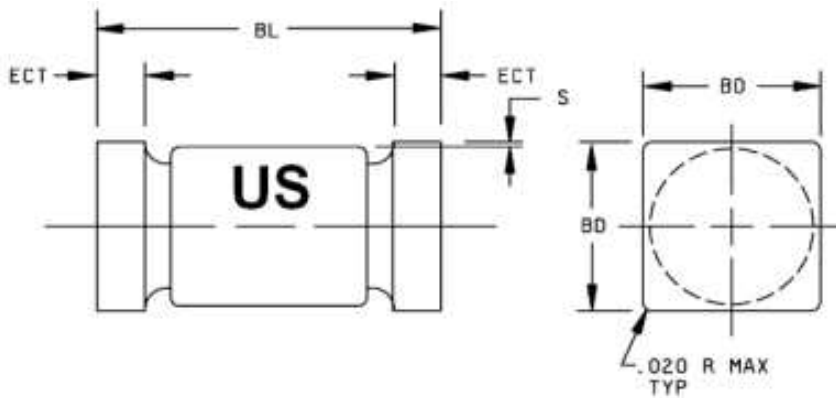
TECHNICAL DATA
DATA SHEET 5102, REV. B.3

AXIAL



Ltr	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
BD	.060	.090	1.52	2.29	
BL	.120	.200	3.05	5.08	5
LD	.018	.022	0.46	0.56	
LL	1.000	1.500	25.40	38.10	
LL1		.050		1.27	3

MELF (Add "US")



Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	.070	.085	1.78	2.16
BL	.165	.195	4.19	4.95
ECT	.019	.028	0.48	0.71
S	.003 min		0.08 min	

SENSITRON

SEMICONDUCTOR

1N6324/US thru 1N6351/US

**ZENER 500mW VOLTAGE
REGULATOR**

TECHNICAL DATA

DATA SHEET 5102, REV. B.3

PART ORDERING INFORMATION

The following part numbers can be purchased in either axial or surface mount devices and screened and tested to the military screening flow. The parts are marked in accordance with the testing performed, example:

Sensitron Screening Level	*Part Number-- Leaded Package (example for 1N6324)	*Part Number-- Surface Mount Package (example for 1N6324)
1N	1N6324	1N6324US, 1N6324U
JAN	JAN1N6324	JAN1N6324US, JAN1N6324U
SJ	SJ6324	SJ6324US, SJ6324U
JANTX	JANTX1N6324	JANTX1N6324US, JANTX1N6324U
SX	SX6324	SX6324US, SX6324U
JANTXV	JANTXV1N6324	JANTXV1N6324US, JANTXV1N6324U
SV	SV6324	SV6324US, SV6324U
JANS	JANS1N6324	JANS1N6324US, JANS1N6324U
SS	SS6324	SS6324US, SS6324U

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.