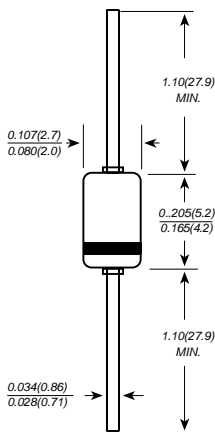


Data Sheet 2591 Rev. A

**1N47-SERIES**  
**ZENER DIODES**

Zener Voltage :3.3-100V Peak Pulse Power :1.0W

**DO-41(GLASS)**



Dimensions in inches and (millimeters)

**FEATURE**

- ◆ Low zener impedance
- ◆ Low regulation factor
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed:  
260°C/10S/9.5mm lead length at 5 lbs tension

**MECHANICAL DATA**

**Case:** JEDEC DO-41(GLASS) molded glass body

**Terminals:** Plated axial leads, solderable per MIL-STD 750, method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.012 ounce,0.35 grams

Datasheet.Directory

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

	<b>SYMBOLS</b>	<b>VALUE</b>	<b>UNITS</b>
Zener Current see Table Characteristics			
Power Dissipation at Tamb=25°C(Note 1)	P <sub>tot</sub>	1000	mW
Junction Temperature	T <sub>j</sub>	200	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 200	°C
Thermal resistance junction ambient(Note 1)	R <sub>θJA</sub>	170	°C/W
Forward voltage at I <sub>F</sub> =200mA	V <sub>F</sub>	1.2	V

Note 1: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

Data Sheet 2591 Rev. A

**ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)**

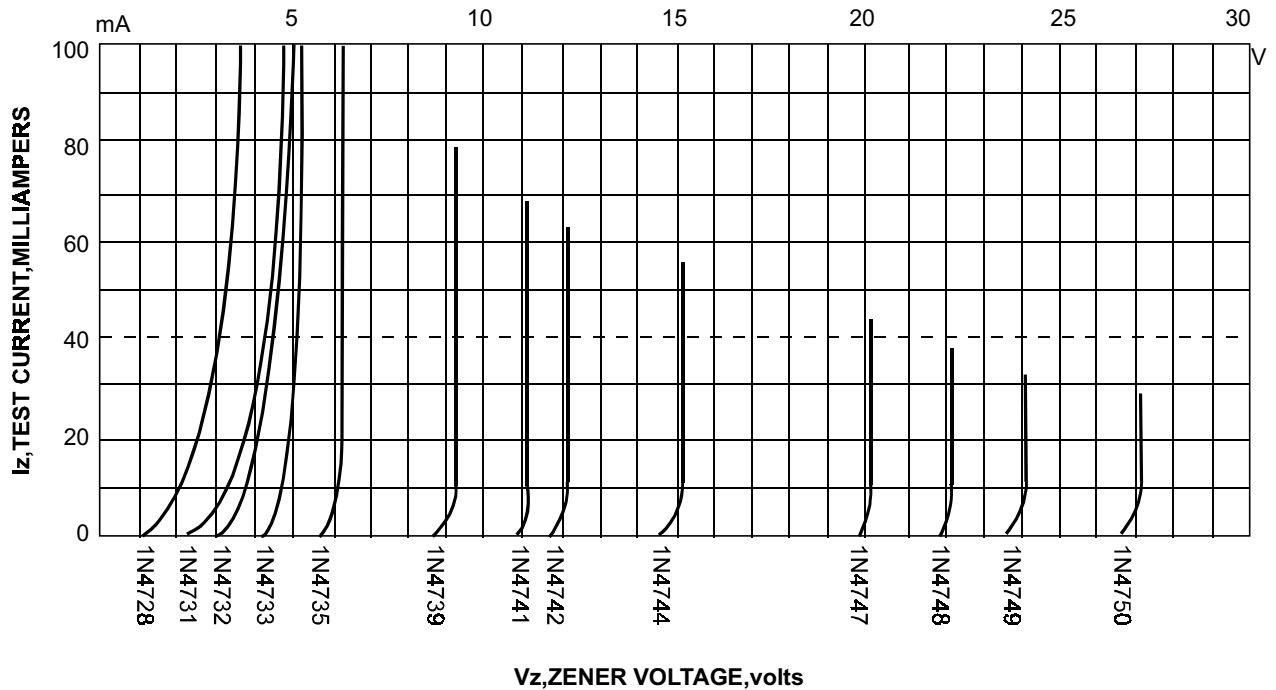
Device Type	Nominal Zener Voltage Vz@IzT	Test Current IzT	Maximum Zener Impedance		Maximum Reverse Leakage Current		Izk	Max.Surge Current I <sub>R</sub> @25°C	Maximum Regulator Current I <sub>M</sub>
	Volts		Z <sub>T</sub> @I <sub>ZT</sub>	Z <sub>T</sub> @I <sub>ZK</sub>	I <sub>R</sub>	@V <sub>R</sub>			
			mA	Ohms	Ohms	μA	Volts	mA	mA
1N4728A	3.3	76	10	400	100	1.0	1.0	1380	276
1N4729A	3.6	69	10	400	100	1.0	1.0	1260	252
1N4730A	3.9	64	9.0	400	50	1.0	1.0	1170	234
1N4731A	4.3	58	9.0	400	10	1.0	1.0	1085	217
1N4732A	4.7	53	8.0	500	10	1.0	1.0	965	193
1N4733A	5.1	49	7.0	550	10	1.0	1.0	890	178
1N4734A	5.6	45	5.0	600	10	2.0	1.0	810	162
1N4735A	6.2	41	2.0	700	10	3.0	1.0	730	146
1N4736A	6.8	37	3.5	700	10	4.0	1.0	660	133
1N4737A	7.5	34	4.0	700	10	5.0	0.5	605	121
1N4738A	8.2	31	4.5	700	10	6.0	0.5	550	110
1N4739A	9.1	28	5.0	700	10	7.0	0.5	500	100
1N4740A	10	25	7.0	700	10	7.6	0.25	454	91
1N4741A	11	23	8.0	700	5.0	8.4	0.25	414	83
1N4742A	12	21	9.0	700	5.0	9.1	0.25	380	76
1N4743A	13	19	10	700	5.0	9.9	0.25	344	69
1N4744A	15	17	14	700	5.0	11.4	0.25	304	61
1N4745A	16	15.5	16	700	5.0	12.2	0.25	285	57
1N4746A	18	14	20	750	5.0	13.7	0.25	250	50
1N4747A	20	12.5	22	750	5.0	15.2	0.25	225	45
1N4748A	22	11.5	23	750	5.0	16.7	0.25	205	41
1N4749A	24	10.5	25	750	5.0	18.2	0.25	190	38
1N4750A	27	9.5	35	750	5.0	20.6	0.25	170	34
1N4751A	30	8.5	40	1000	5.0	22.8	0.25	150	30
1N4752A	33	7.5	45	1000	5.0	25.1	0.25	135	27
1N4753A	36	7.0	50	1000	5.0	27.4	0.25	125	25
1N4754A	39	6.5	60	1000	5.0	29.7	0.25	115	23
1N4755A	43	6.0	70	1500	5.0	32.7	0.25	110	22
1N4756A	47	5.5	80	1500	5.0	35.8	0.25	95	19
1N4757A	51	5.0	95	1500	5.0	38.8	0.25	90	18
1N4758A	56	4.5	110	2000	5.0	42.6	0.25	80	16
1N4759A	62	4.0	125	2000	5.0	47.1	0.25	70	14
1N4760A	68	3.7	150	2000	5.0	51.7	0.25	65	13
1N4761A	75	3.3	175	2000	5.0	56.0	0.25	60	12
1N4762A	82	3.0	200	3000	5.0	62.2	0.25	55	11
1N4763A	91	2.8	250	3000	5.0	69.2	0.25	50	10
1N4764A	100	2.5	350	3000	5.0	76.0	0.25	45	9

Note 1: Suffix "A" indicate ±5% tolerance

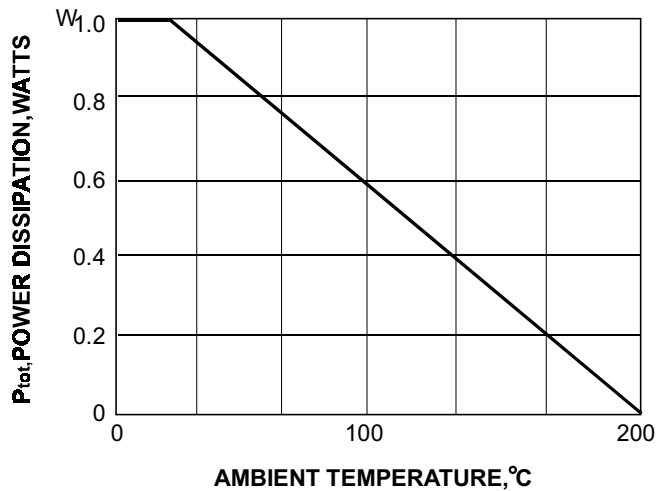
Data Sheet 2591, Rev. A

**RATINGS AND CHARACTERISTIC CURVES 1N47 SERIES**

**Breakdown characteristics**



**Admissible power dissipation versus ambient temperature**  
 Valid provided that leads are kept at ambient temperature at a distance of 10mm from case



**TECHNICAL DATA**

**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.