

Features

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



DO-41

Mechanical Data

- **Case:** JEDEC DO-41 molded plastic body
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Terminals:** Plated axial leads, solderable per MIL-STD 750, method 2026
- **Weight:** 0.012 ounce, 0.35 grams

Major Ratings and Characteristics

P_{tot}	1W
VF	1.2V
T_j max.	150°C

Maximum Ratings & Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load, derate current by 20%.

Items	Symbol	VALUE	UNIT
Zener Current see Table Characteristics			
Power Dissipation at T _{amb} =25 °C ⁽¹⁾	P _{tot}	1	W
Forward voltage at I _F =200mA	V _F	1.2	V
Thermal resistance from junction to ambient	R _{θJA}	170	°C/W
Operating junction temperature range	T _J	-65 to +150	°C
Storage temperature range	T _{STG}	-65 to +150	°C

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

Electrical Characteristics (T_A=25 °C unless otherwise noted)

Device Type ⁽²⁾	Nominal Zener Voltage V _Z @I _{ZT} (Volts)	Current I _{ZT} (mA)	Maximum Zener Impedance		Maximum Reverse Characteristics		Current I _{ZK} (mA)	Max Surge Current I _{SM} @25°C (mA)	Typical Temperature Coefficient %/°C	Maximum Regulator Current I _{ZM} (mA)
			Z _{ZT} @I _{ZT}	ZZK@I _{ZK}	I _R @V _R	V _R				
			Ohms	Ohms	mA	Volts				
1N4728A	3.3	76	10	400	100	1.0	1.0	1380.0	-0.070	276
1N4729A	3.6	69	10	400	100	1.0	1.0	1260.0	-0.065	252
1N4730A	3.9	64	9	400	50	1.0	1.0	1170.0	-0.060	234
1N4731A	4.3	58	9	400	10	1.0	1.0	1085.0	±0.055	217
1N4732A	4.7	53	8	500	10	1.0	1.0	965.0	±0.030	193
1N4733A	5.1	49	7	550	10	1.0	1.0	890.0	±0.030	178
1N4734A	5.6	45	5	600	10	2.0	1.0	810.0	+0.038	162
1N4735A	6.2	41	2	700	10	3.0	1.0	730.0	+0.045	146
1N4736A	6.8	37	3.5	700	10	4.0	1.0	660.0	+0.050	133
1N4737A	7.5	34	4	700	10	5.0	0.5	605.0	+0.058	121
1N4738A	8.2	31	4.5	700	10	6.0	0.5	550.0	+0.062	110
1N4739A	9.1	28	5	700	10	7.0	0.5	500.0	+0.068	100
1N4740A	10	25	7	700	10	7.6	0.25	454.0	+0.075	91
1N4741A	11	23	8	700	5	8.4	0.25	414.0	+0.076	83
1N4742A	12	21	9	700	5	9.1	0.25	380.0	+0.077	76
1N4743A	13	19	10	700	5	9.9	0.25	344.0	+0.079	69
1N4744A	15	17	14	700	5	11.4	0.25	304.0	+0.082	61
1N4745A	16	15.5	16	700	5	12.2	0.25	285.0	+0.083	57
1N4746A	18	14.0	20	750	5	13.7	0.25	250.0	+0.085	50
1N4747A	20	12.5	22	750	5	15.2	0.25	225.0	+0.086	45
1N4748A	22	11.5	23	750	5	16.7	0.25	205.0	+0.087	41
1N4749A	24	10.5	25	750	5	18.2	0.25	190.0	+0.088	38
1N4750A	27	9.5	35	750	5	20.6	0.25	170.0	+0.090	34
1N4751A	30	8.5	40	1000	5	22.8	0.25	150.0	+0.091	30
1N4752A	33	7.5	45	1000	5	25.1	0.25	135.0	+0.092	27
1N4753A	36	7.0	50	1000	5	27.4	0.25	125.0	+0.093	25
1N4754A	39	6.5	60	1000	5	29.7	0.25	115.0	+0.094	23
1N4755A	43	6.0	70	1500	5	32.7	0.25	110.0	+0.095	22
1N4756A	47	5.5	80	1500	5	35.8	0.25	95.0	+0.095	19
1N4757A	51	5.0	95	1500	5	38.8	0.25	90.0	+0.096	18
1N4758A	56	4.5	110	2000	5	42.6	0.25	80.0	+0.096	16
1N4759A	62	4.0	125	2000	5	47.1	0.25	70.0	+0.096	14
1N4760A	68	3.7	150	2000	5	51.7	0.25	65.0	+0.096	13
1N4761A	75	3.3	175	2000	5	56.0	0.25	60.0	+0.096	12
1N4762A	82	3.0	200	3000	5	62.2	0.25	55.0	+0.096	11
1N4763A	91	2.8	250	3000	5	69.2	0.25	50.0	+0.096	10
1N4764A	100	2.5	350	3000	5	76.0	0.25	45.0	+0.096	9
1N110Z	110	2.3	450	4000	5	83.6	0.25	-	+0.096	-
1N120Z	120	2.0	550	4500	5	91.2	0.25	-	+0.096	-
1N130Z	130	1.9	700	5000	5	98.8	0.25	-	+0.096	-
1N150Z	150	1.7	1000	6000	5	114.0	0.25	-	+0.096	-
1N160Z	160	1.6	1100	6500	5	121.6	0.25	-	+0.096	-
1N180Z	180	1.4	1200	7000	5	136.8	0.25	-	+0.096	-
1N200Z	20	1.2	1500	8000	5	152.0	0.25	-	+0.096	-
1N270Z	270	0.9	2500	8500	5	205.0	0.25	-	+0.096	-
1N330Z	330	0.8	3000	10000	5	250.0	0.25	-	+0.096	-
1N400Z	400	0.7	4000	13000	5	304.0	0.25	-	+0.096	-

Note 2: Suffix "A" indicate +5% tolerance, Suffix "B" indicate +2% tolerance

Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Breakdown Characteristics

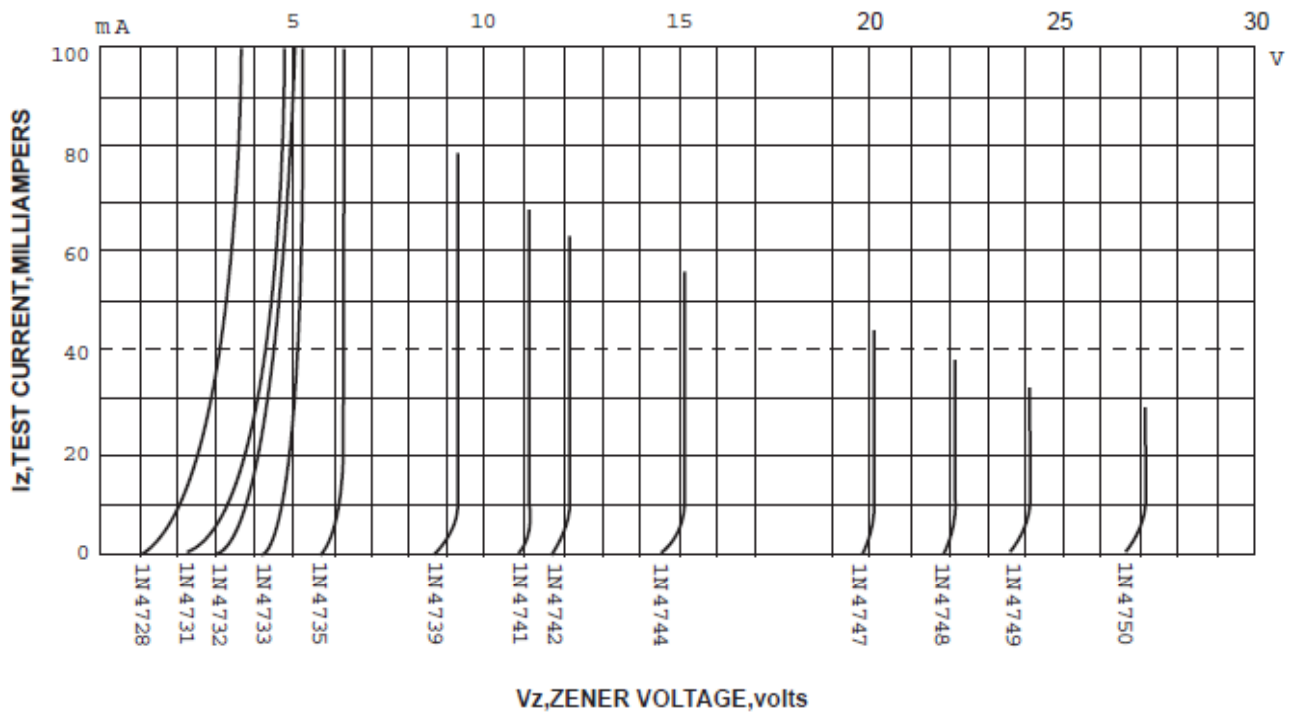
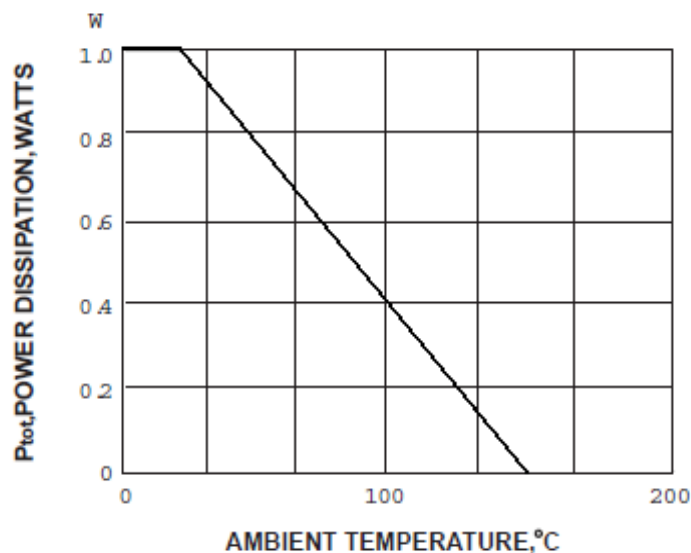
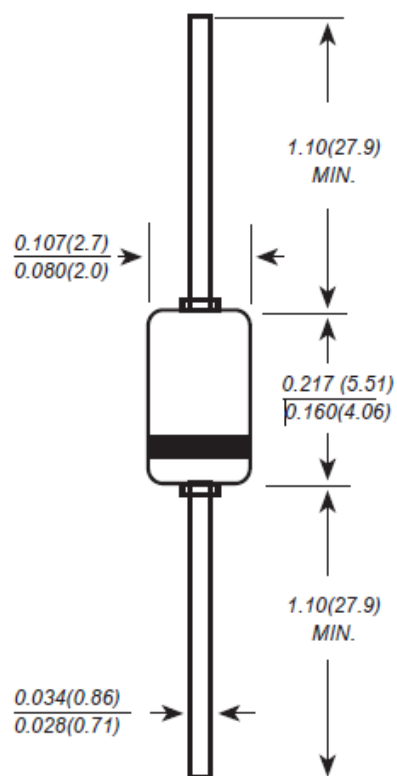


Fig.2 Power Derating Curve



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

Package Outline**DO-41**

Dimensions in inches and (millimeters)