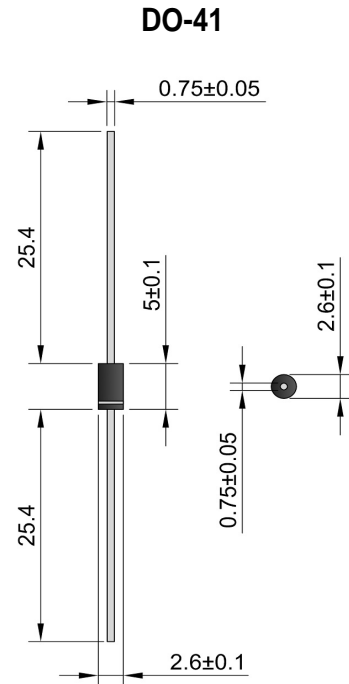


## Features

- Glass Passivated Die Construction
- 1.0W Power Dissipation
- 3.3V – 330V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Low Inductance
- For Use in Voltage Regulator or Reference
- Plastic Case Material has UL Flammability Classification Rating 94V-0

## Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**



## Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation at $T_L = 50^{\circ}\text{C}$ (Note 1) Derate above $50^{\circ}\text{C}$	$P_D$	1.0 6.67	W mW/ $^{\circ}\text{C}$
Forward Voltage @ $I_F = 200\text{mA}$	$V_F$	1.2	V
Thermal Resistance, Junction to Ambient (Note 2)	$R_{JA}$	170	K/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^{\circ}\text{C}$

Note: 1. Measured at lead length 3/8" (9.5mm) from body.

2. Valid provided that leads are kept at ambient temperature at a distance of 10mm from the case.

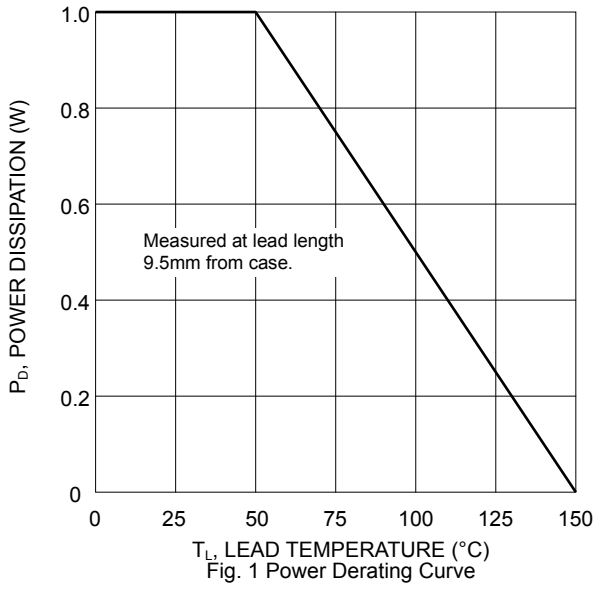


Fig. 1 Power Derating Curve

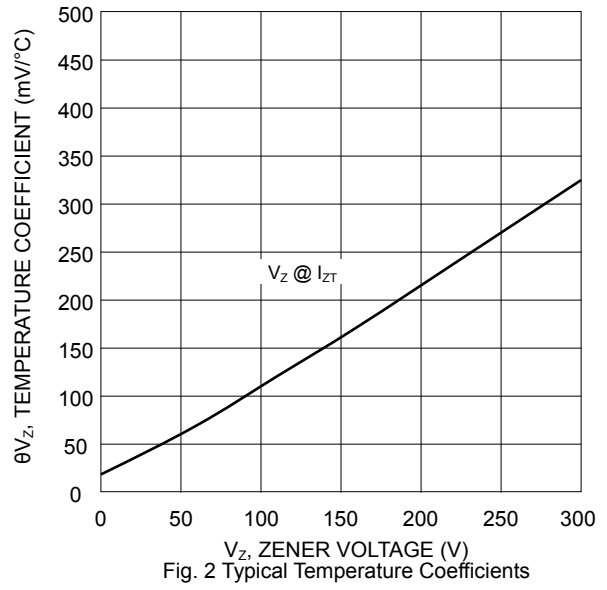


Fig. 2 Typical Temperature Coefficients

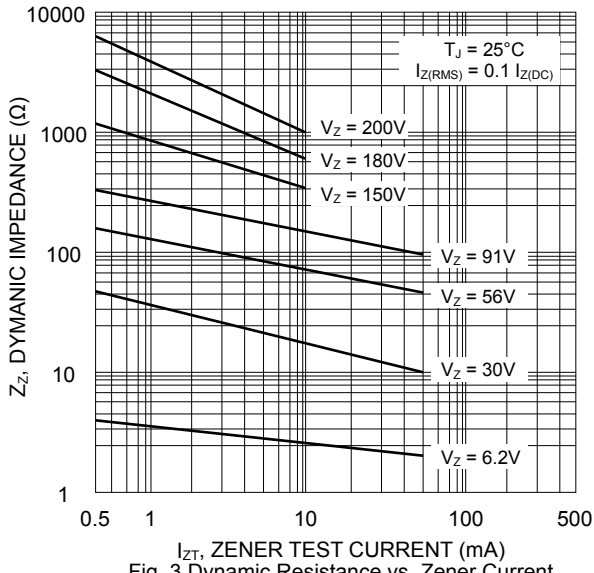


Fig. 3 Dynamic Resistance vs. Zener Current

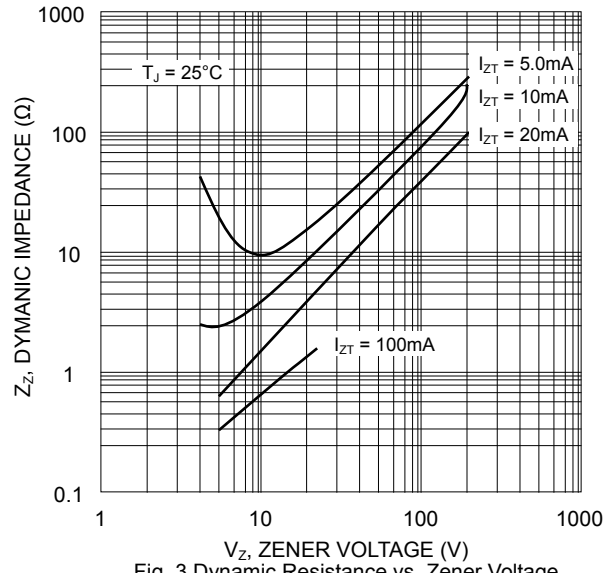


Fig. 3 Dynamic Resistance vs. Zener Voltage

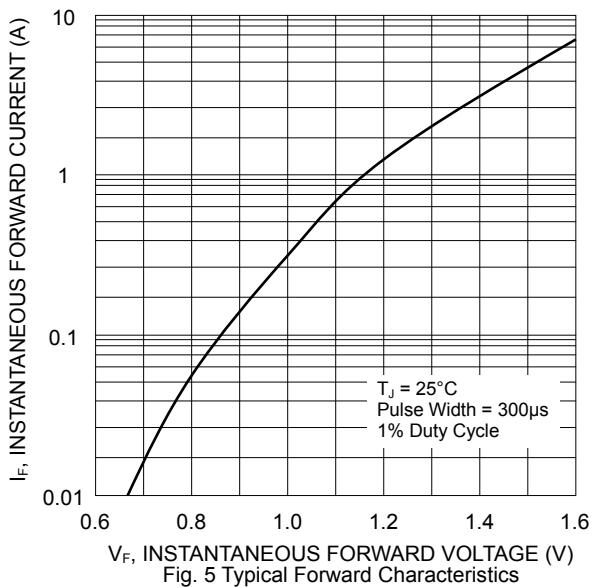


Fig. 5 Typical Forward Characteristics

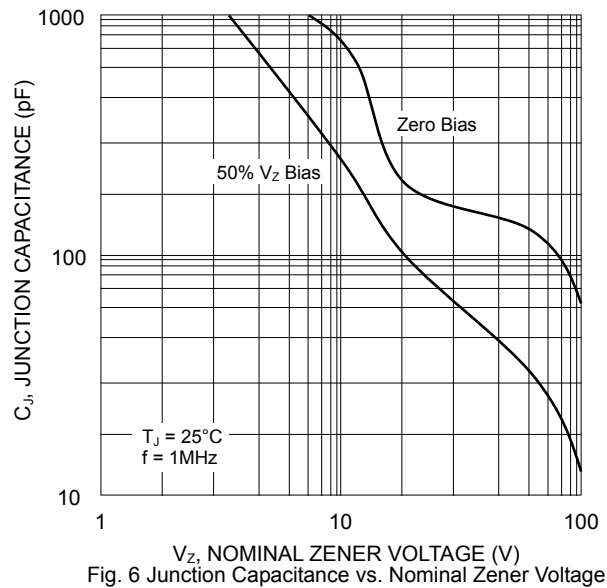


Fig. 6 Junction Capacitance vs. Nominal Zener Voltage

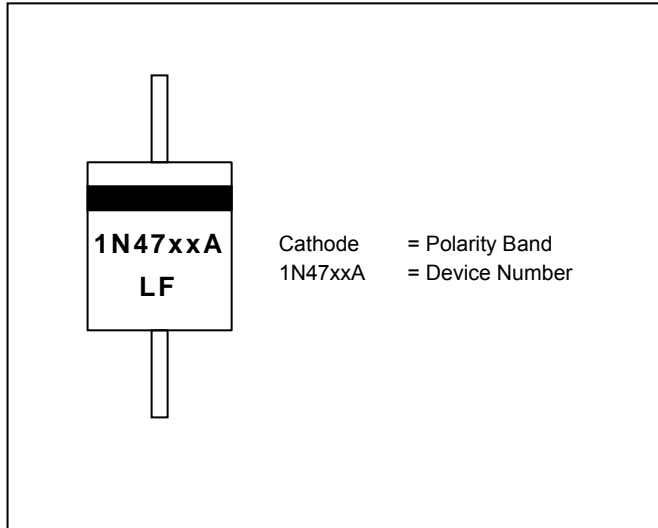


**Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise specified) Table 1**

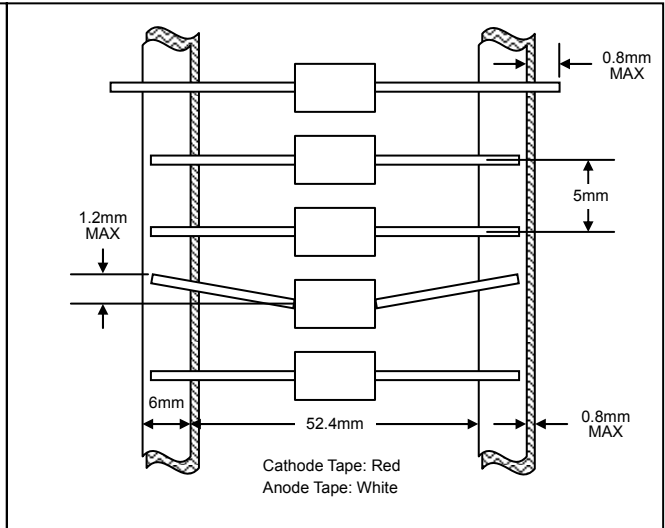
Type Number (Note 1)	Nominal Zener Voltage (Note 2)	Test Current	Maximum Zener Impedance (Note 3)			Maximum Leakage Current		Max DC Zener Current	Max Surge Current 8.3ms
	V <sub>Z</sub> @ I <sub>ZT</sub>	I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub> @ V <sub>R</sub>		I <sub>ZM</sub>	I <sub>ZS</sub>
	(V)	(mA)	( )	( )	(mA)	(μA)	(V)	(mA)	(mA)
1N4728A	3.3	76.0	10	400	1.00	100	1.0	276	1380
1N4729A	3.6	69.0	10	400	1.00	100	1.0	252	1260
1N4730A	3.9	64.0	9.0	400	1.00	50	1.0	234	1190
1N4731A	4.3	58.0	9.0	400	1.00	10	1.0	217	1070
1N4732A	4.7	53.0	8.0	500	1.00	10	1.0	193	970
1N4733A	5.1	49.0	7.0	550	1.00	10	1.0	178	890
1N4734A	5.6	45.0	5.0	600	1.00	10	2.0	162	810
1N4735A	6.2	41.0	2.0	700	1.00	10	3.0	146	730
1N4736A	6.8	37.0	3.5	700	1.00	10	4.0	133	660
1N4737A	7.5	34.0	4.0	700	0.50	10	5.0	121	605
1N4738A	8.2	31.0	4.5	700	0.50	10	6.0	110	550
1N4739A	9.1	28.0	5.0	700	0.50	10	7.0	100	500
1N4740A	10	25.0	7.0	700	0.25	10	7.6	91	454
1N4741A	11	23.0	8.0	700	0.25	5	8.4	83	414
1N4742A	12	21.0	9.0	700	0.25	5	9.1	76	380
1N4743A	13	19.0	10	700	0.25	5	9.9	69	344
1N4744A	15	17.0	14	700	0.25	5	11.4	61	304
1N4745A	16	15.5	16	700	0.25	5	12.2	57	285
1N4746A	18	14.0	20	750	0.25	5	13.7	50	250
1N4747A	20	12.5	22	750	0.25	5	15.2	45	225
1N4748A	22	11.5	23	750	0.25	5	16.7	41	205
1N4749A	24	10.5	25	750	0.25	5	18.2	38	190
1N4750A	27	9.5	35	750	0.25	5	20.6	34	170
1N4751A	30	8.5	40	1000	0.25	5	22.8	30	150
1N4752A	33	7.5	45	1000	0.25	5	25.1	27	135
1N4753A	36	7.0	50	1000	0.25	5	27.4	25	125
1N4754A	39	6.5	60	1000	0.25	5	29.7	23	115
1N4755A	43	6.0	70	1500	0.25	5	32.7	22	110
1N4756A	47	5.5	80	1500	0.25	5	35.8	19	95
1N4757A	51	5.0	95	1500	0.25	5	38.8	18	90
1N4758A	56	4.5	110	2000	0.25	5	42.6	16	80
1N4759A	62	4.0	125	2000	0.25	5	47.1	14	70
1N4760A	68	3.7	150	2000	0.25	5	51.7	13	65
1N4761A	75	3.3	175	2000	0.25	5	56.0	12	60
1N4762A	82	3.0	200	3000	0.25	5	62.2	11	55
1N4763A	91	2.8	250	3000	0.25	5	69.2	10	50
1N4764A	100	2.5	350	3000	0.25	5	76.0	9.0	45
Z1110A	110	2.3	450	4000	0.25	5	83.6	8.6	40
Z1120A	120	2.0	550	4500	0.25	5	91.2	7.8	37
Z1130A	130	1.9	700	5000	0.25	5	98.8	7.0	34
Z1150A	150	1.7	1000	6000	0.25	5	114.0	6.4	30
Z1160A	160	1.6	1100	6500	0.25	5	121.6	5.8	28
Z1180A	180	1.4	1200	7000	0.25	5	136.8	5.2	25
Z1200A	200	1.2	1900	9990	0.25	5	152.0	4.7	22
Z1220A	220	1.0	1600	8000	0.25	5	167.2	4.0	20
Z1240A	240	0.9	1800	8500	0.25	5	182.4	3.8	19
Z1250A	250	0.9	2000	9000	0.25	5	190.0	3.6	18
Z1270A	270	0.8	2100	9000	0.25	5	205.0	3.3	16
Z1300A	300	0.8	2300	9500	0.25	5	228.0	3.0	15
Z1330A	330	0.7	2500	9500	0.25	5	250.2	2.7	13

Note: 1. Type numbers listed have standard tolerance on the nominal zener voltage of ±5%.  
 2. Measured under thermal equilibrium and DC (I<sub>ZT</sub>) test conditions.  
 3. f = 1KHz

## MARKING INFORMATION



## TAPING SPECIFICATIONS



## PACKAGING INFORMATION

### TAPE & REEL

330mm  
Product ID Label  
80±5mm

### TAPE & BOX

150mm  
Product ID Label  
Inspection Hole (both ends)  
255mm  
75mm

### BULK

20mm  
198mm  
84mm

Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>TAPE &amp; REEL</b>	330	5,000	370 x 370 x 420	25,000	13.0
<b>TAPE &amp; BOX</b>	255 x 75 x 150	5,000	400 x 273 x 415	50,000	21.0
<b>BULK</b>	198 x 84 x 20	1,000	459 x 214 x 256	50,000	19.5

**Note:** 1. Paper reel, white or gray color. Core material: plastic or metal.  
2. Components are packed in accordance with EIA standard RS-296-E.