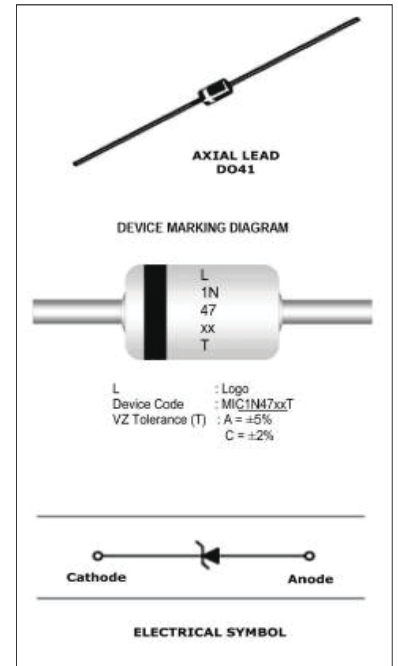


## HERMETICALLY SEALED GLASS ZENER VOLTAGE REGULATORS

### FEATURES:

- Zener Voltage Range 3 to 75 Volts
- Through-Hole Device Type Mounting
- DO-41 Glass Package (JEDEC)
- Hermetically Sealed Glass
- Compression Bonded Construction
- All external surfaces are Corrosion Resistant And Leads Are Readily Solderable
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Terminal Finish Cathode Indicated By Polarity Band



### ABSOLUTE MAXIMUM RATINGS TA=25 °C unless otherwise noted

Parameter	Value	Units
Storage Temperature Range	-65 to +200	°C
Maximum Junction Operating Temperature	+200	°C
Total Device Dissipation	1.0	Watt
Thermal Resistance Junction to Lead	53.5	°C / W
Thermal Resistance Junction to Ambient	100	Watt

These ratings are limiting values above which the serviceability of the diode may be impaired.

### ELECTRICAL CHARACTERISTICS TA=25 °C unless otherwise noted

Type	Zener Voltage <sup>3)</sup>		Dynamic Resistance <sup>1)</sup>			Reverse Current		Maximum Surge Current <sup>4)</sup>	Maximum Regulator Current <sup>2)</sup>
	V <sub>Znom</sub>	at I <sub>ZT</sub>	Z <sub>ZT</sub>	Z <sub>ZK</sub>	at I <sub>ZK</sub>	I <sub>R</sub>	at V <sub>R</sub>	at T <sub>a</sub> = 25 °C	
	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)	I <sub>ZSM</sub> (mA)	I <sub>ZM</sub> (mA)
1N4727A	3	83	10	400	1	150	1	1375	275
1N4728A	3.3	76	10	400	1	150	1	1375	275
1N4729A	3.6	69	10	400	1	100	1	1260	252
1N4730A	3.9	64	9	400	1	100	1	1190	234
1N4731A	4.3	58	9	400	1	50	1	1070	217
1N4732A	4.7	53	8	500	1	10	1	970	193
1N4733A	5.1	49	7	550	1	10	1	890	178
1N4734A	5.6	45	5	600	1	10	2	810	162
1N4735A	6.2	41	2	700	1	10	3	730	146
1N4736A	6.8	37	3.5	700	1	10	4	660	133
1N4737A	7.5	34	4	700	0.5	10	5	605	121
1N4738A	8.2	31	4.5	700	0.5	10	6	550	110
1N4739A	9.1	28	5	700	0.5	10	7	500	100
1N4740A	10	25	7	700	0.25	10	7.6	454	91

**HERMETICALLY SEALED GLASS ZENER VOLTAGE REGULATORS**
**ELECTRICAL CHARACTERISTICS TA=25 °C unless otherwise noted**

Type	Zener Voltage <sup>3)</sup>		Dynamic Resistance <sup>1)</sup>			Reverse Current		Maximum Surge Current <sup>4)</sup>	Maximum Regulator Current <sup>2)</sup>
	V <sub>Znom</sub>	at I <sub>ZT</sub>	Z <sub>ZT</sub>	Z <sub>ZK</sub>	at I <sub>ZK</sub>	I <sub>R</sub>	at V <sub>R</sub>	at T <sub>a</sub> = 25 °C	
	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)	I <sub>ZSM</sub> (mA)	I <sub>ZM</sub> (mA)
1N4741A	11	23	8	700	0.25	5	8.4	414	83
1N4742A	12	21	9	700	0.25	5	9.1	380	76
1N4743A	13	19	10	700	0.25	5	9.9	344	69
1N4744A	15	17	14	700	0.25	5	11.4	304	61
1N4745A	16	15.5	16	700	0.25	5	12.2	285	57
1N4746A	18	14	20	750	0.25	5	13.7	250	50
1N4747A	20	12.5	22	750	0.25	5	15.2	225	45
1N4748A	22	11.5	23	750	0.25	5	16.7	205	41
1N4749A	24	10.5	25	750	0.25	5	18.2	190	38
1N4750A	27	9.5	35	750	0.25	5	20.6	170	34
1N4751A	30	8.5	40	1000	0.25	5	22.8	150	30
1N4752A	33	7.5	45	1000	0.25	5	25.1	135	27
1N4753A	36	7	50	1000	0.25	5	27.4	125	25
1N4754A	39	6.5	60	1000	0.25	5	29.7	115	23
1N4755A	43	6	70	1500	0.25	5	32.7	110	22
1N4756A	47	5.5	80	1500	0.25	5	35.8	95	19
1N4757A	51	5	95	1500	0.25	5	38.8	90	18
1N4758A	56	4.5	110	2000	0.25	5	42.6	80	16
1N4759A	62	4	125	2000	0.25	5	47.1	70	14
1N4760A	68	3.7	150	2000	0.25	5	51.7	65	13
1N4761A	75	3.3	175	2000	0.25	5	56	60	12

**Notes:**
**1. TOLERANCE AND TYPE NUMBER DESIGNATION (V<sub>Z</sub>)**

The type numbers listed have a standard tolerance on the nominal zener voltage +5%. Device tolerance of +2% is indicated by a "C" instead of an "A"

**2. SPECIALS AVAILABLE INCLUDE**

Nominal zener voltages between the voltages shown and tighter voltage. for detailed information on price, availability and delivery, contact us.

**3. ZENER VOLTAGE (V<sub>Z</sub>) MEASUREMENT**

The zener voltage (V<sub>Z</sub>) is tested under pulse condition. The measured V<sub>Z</sub> is guaranteed to be within specification with device junction in thermal equilibrium.

**4. ZENER IMPEDANCE (Z<sub>Z</sub>) DERIVATION**

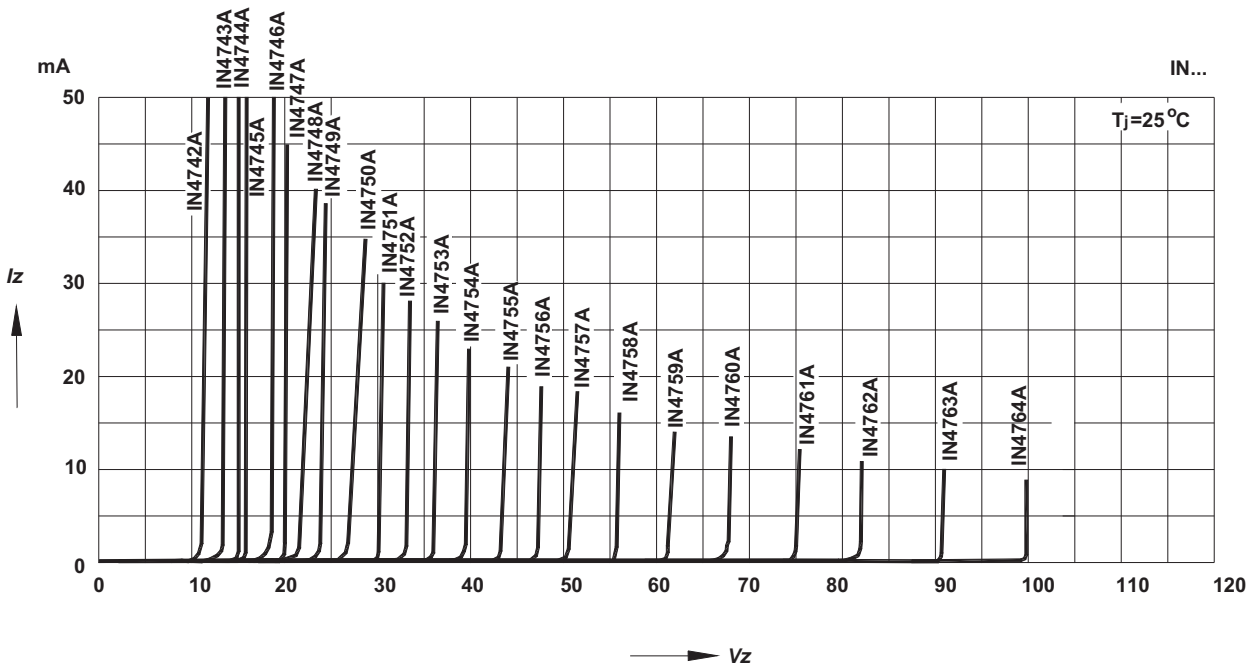
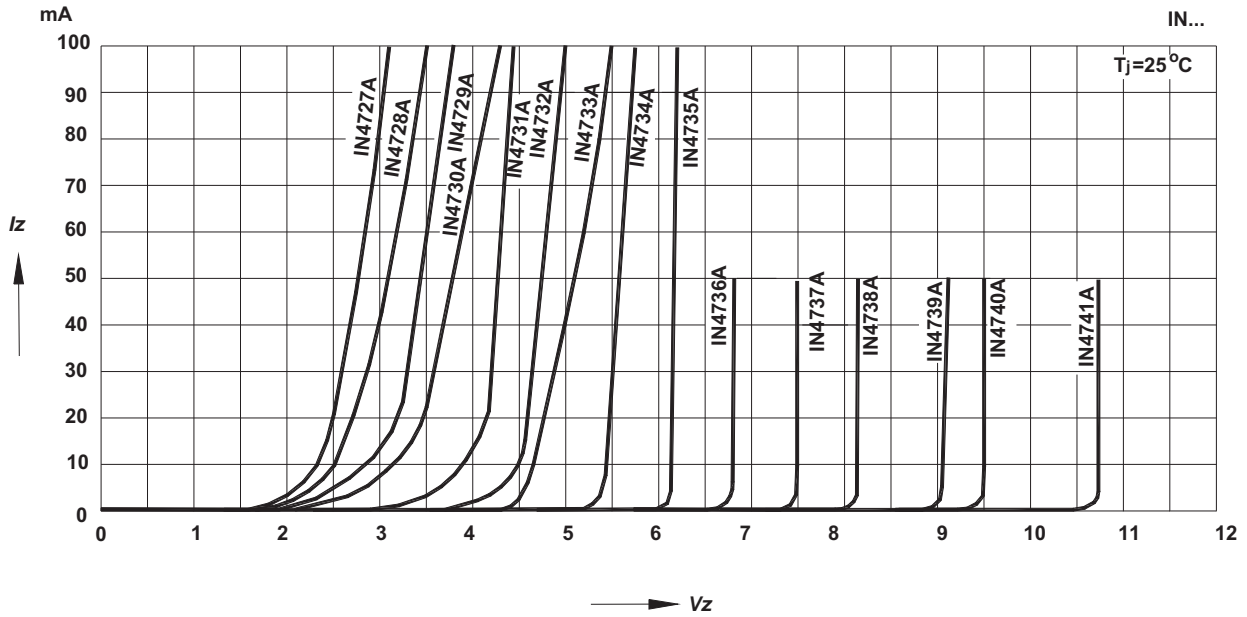
The zener impedance is derived from the 60 cycle AC voltage, which results when an AC current having an RMS value equal to 10% of the DC zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>.

## HERMETICALLY SEALED GLASS ZENER VOLTAGE REGULATORS

### Typical Characteristics

#### Breakdown characteristics

$T_j = \text{constant (pulsed)}$



## HERMETICALLY SEALED GLASS ZENER VOLTAGE REGULATORS

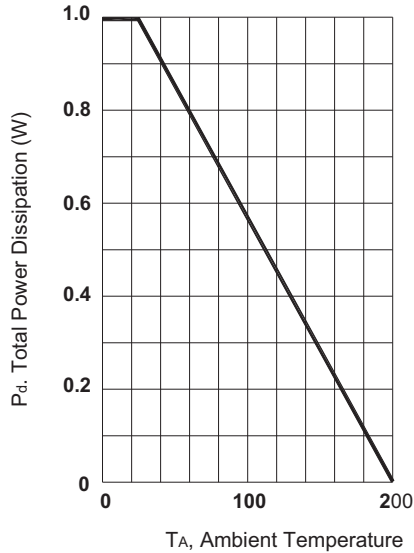


Fig. 1 Power Dissipation vs Ambient Temperature

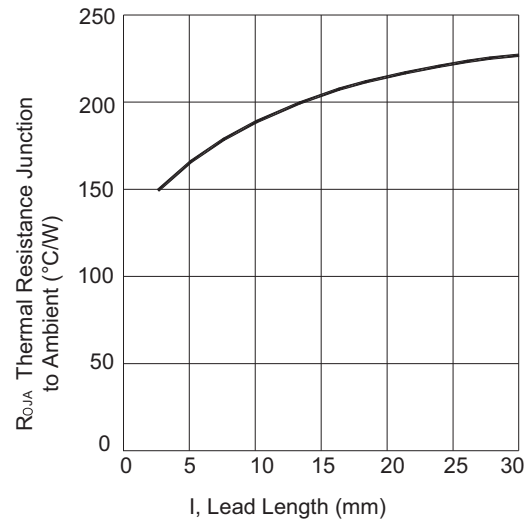


Fig. 2 Typical Thermal Resistance vs. Lead Length

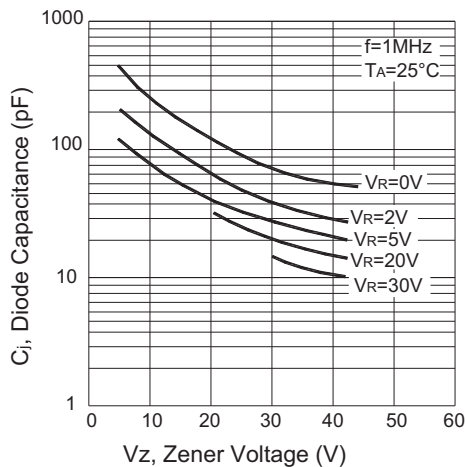


Fig. 3 Junction Capacitance vs Zener Voltage

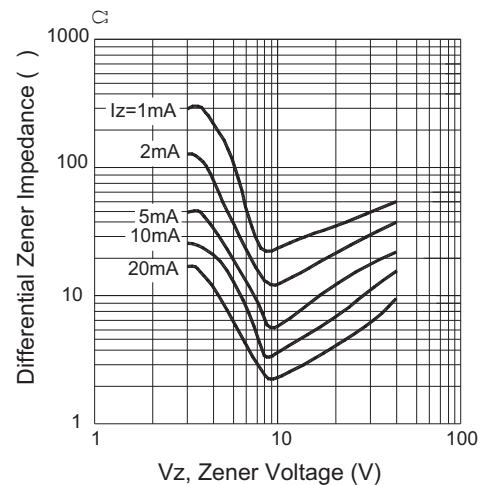
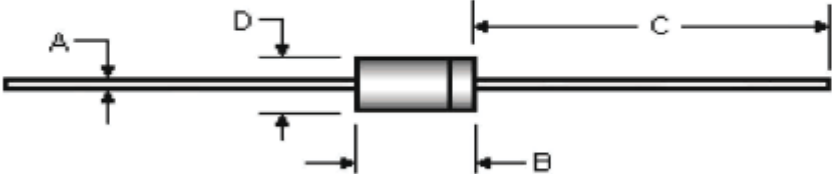


Fig. 4 Typical Zener Impedance vs. Zener Voltage

## HERMETICALLY SEALED GLASS ZENER VOLTAGE REGULATORS

### PACKAGE OUTLINE

DO-41

Package	Case Outline			
DO-41				
DO-41	DO-41			
DIM	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	0.72	0.86	0.028	0.034
<b>B</b>	4.07	5.20	0.160	0.205
<b>C</b>	25.40	---	1.000	---
<b>D</b>	2.04	2.71	0.080	0.107

**Notes:**

1. All dimensions are within JEDEC standard.
2. DO41 polarity denoted by cathode band.

**Disclaimer**

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.