



# 1N4728G-1N4758G

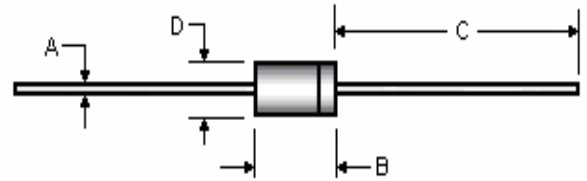
## 1W DO-41 Zener Voltage Regulators

### DO-41



### Features

- ✧ Zener Voltage Range 3.3. to 56Volts.
- ✧ DO-41 Package (JEDEC)
- ✧ Through-Hole Device Type Mounting
- ✧ Hermetically Sealed Glass
- ✧ Compression Bonded Construction
- ✧ All External Surface Are Corrosion Resistant And Terminals Are Readily Solderable
- ✧ Solder Hot Dip Tin(Sn) Lead Finish
- ✧ RoHS Compliant



Dimension	Millimeters		Inches	
	Min	Max	Min	Max
A	0.68	0.81	0.027	0.032
B	3.70	4.25	0.146	0.167
C	25.40	---	1.000	---
D	2.10	2.60	0.083	0.102

### Mechanical Data

- ✧ Lead: Pure tin plated , lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity : Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260oC//10 seconds
- ✧ Weight : 0.270~0.290 grams
- ✧ Marking code : 1N47XXG for ± 5% Vz  
1N47XXC for ± 2% Vz



Cathode                      Anode

### ELECTRICAL SYMBOL

### Maximum Ratings and Electrical Characteristics

Rating at 25 ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	Symbol	Value	Units
Power Dissipation	$P_D$	1	W
Thermal Resistance Junction to Lead	$R_{jl}$	53.5	°C / W
Thermal Resistance Junction to Ambient	$R_{ja}$	100	°C / W
Operating Temperature Range	$T_{OPR}$	-65 to +200	°C
Storage Temperature Range	$T_{STG}$	-65 to +200	°C

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

### Electrical characteristics ( TA=25°C unless otherwise note )

Device Type	V <sub>Z</sub> @ I <sub>ZT</sub> (Volts) Nominal	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub> (Ohm) Max.	I <sub>ZK</sub> (mA)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ohm) Max.	I <sub>R</sub> @ V <sub>R</sub> (uA) Max.	V <sub>R</sub> (Volts)
1N4728G	3.3	76	10	1	400	100	1
1N4729G	3.6	69	10	1	400	100	1
1N4730G	3.9	64	9	1	400	50	1
1N4731G	4.3	58	9	1	400	10	1
1N4732G	4.7	53	8	1	500	10	1
1N4733G	5.1	49	7	1	550	10	1
1N4734G	5.6	45	5	1	600	10	2
1N4735G	6.2	41	2	1	700	10	3
1N4736G	6.8	37	3.5	1	700	10	4
1N4737G	7.5	34	4	0.5	700	10	5
1N4738G	8.2	31	4.5	0.5	700	10	6
1N4739G	9.1	28	5	0.5	700	10	7
1N4740G	10	25	7	0.25	700	10	7.6
1N4741G	11	23	8	0.25	700	5	8.4
1N4742G	12	21	9	0.25	700	5	9.1
1N4743G	13	19	10	0.25	700	5	9.9
1N4744G	15	17	14	0.25	700	5	11.4
1N4745G	16	15.5	16	0.25	700	5	12.2
1N4746G	18	14	20	0.25	700	5	13.7
1N4747G	20	12.5	22	0.25	750	5	15.2
1N4748G	22	11.5	23	0.25	750	5	16.7
1N4749G	24	10.5	25	0.25	750	5	18.2
1N4750G	27	9.5	35	0.25	750	5	20.6
1N4751G	30	8.5	40	0.25	1000	5	22.8
1N4752G	33	7.5	45	0.25	1000	5	25.1
1N4753G	36	7	50	0.25	1000	5	27.4
1N4754G	39	6.5	60	0.25	1000	5	29.7
1N4755G	43	6	70	0.25	1500	5	32.7
1N4756G	47	5.5	80	0.25	1500	5	35.8
1N4757G	51	5	95	0.25	1500	5	38.8
1N4758G	56	4.5	110	0.25	2000	5	42.6

V<sub>F</sub> Forward Voltage = 1.2 V Maximum @ I<sub>F</sub> = 200 mA for all types

Notes :

- TOLERANCE AND TYPE NUMBER DESIGNATION (VZ)**  
The type numbers listed have a standard tolerance on the nominal zener voltage of ± 5%. Device tolerance of 2% is indicated by a "C" instead of an "G"
- SPECIALS AVAILABLE INCLUDE**  
Nominal zener voltages between the voltages shown and tighter voltage, for detailed information on price, availability and delivery, contact you nearest TAIWAN SEMICONDUCTOR CO
- ZENER VOLTAGE (VZ) MEASUREMENT**  
The zener voltage (VZ) is tested under pulse condition. The measured VZ is guaranteed to be within specification with device junction in thermal equilibrium.
- ZENER IMPEDANCE (ZZ) 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>.