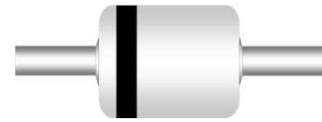


Small Signal Product

1W DO-41 Zener Voltage Regulators

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 surfaces are corrosion resistant and terminals are readily solderable
- Solder hot dip tin(Sn) lead finish
- ROHS complaint



DO-41



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 second
- Weight: 0.270~0.290 grams
- Marking code : 1N47XXG for $\pm 5\%$ Vz
1N47XXC for $\pm 2\%$ Vz

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	1	W
Thermal Resistance Junction to Lead	R_{jl}	53.5	$^\circ\text{C/W}$
Thermal Resistance Junction to Ambient	R_{ja}	100	$^\circ\text{C/W}$
Operating Temperature Range	T_{OPR}	- 65 to + 200	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 200	$^\circ\text{C}$

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

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ORDERING INFORMATION					
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
1N47xxG (Note1)	(Note 2)	R0	G	DO-41	5K / 14" Reel
		A1	G	DO-41	3K / BOX (Ammo)
		A0	G	DO-41	3K / BOX (Ammo)

Note 1 : "xx" is Device Code from "28" thru "58".

Note 2 : Manufacture special control, if empty means no special control requirement.

EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
1N4728G R0G	1N4728G		R0	G	Green compound
1N4728G-L0 R0G	1N4728G	L0	R0	G	Green compound

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Electrical Characteristics (Ratings at $T_A=25^\circ\text{C}$ ambient)

VF Forward Voltage = 1.2 V Maximum @ IF = 200 mA for all types

Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ O_{ZK} (Ohm) Max.	I_{ZK} (mA)	Z_{ZK} @ I_{ZK} (Ohm) Max.	I_R @ V_R (μA) Max.	V_R (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

Notes : 1. TOLERANCE AND TYPE NUMBER DESIGNATION (VZ)

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

2. SPECIAL AVAILABLE INCLUDE

Nominal zener voltages shown and tighter voltage, for detailed information on price, availability and delivery, contact your nearest Taiwan Semiconductor representative.

3. ZENER VOLTAGE (VZ) MEASUREMENT

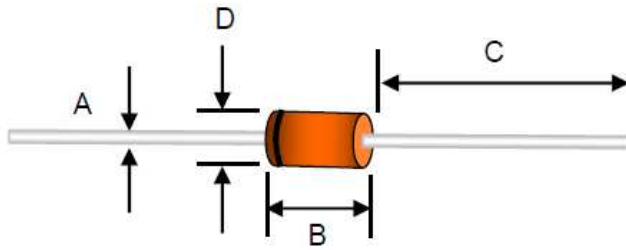
The zener voltage (VZ) is tested under pulse condition. The measured VZ is guaranteed to be within specification with device junction in thermal equilibrium.

4. 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_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

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PACKAGE OUTLINE DIMENSIONS



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	0.68	0.90	0.027	0.035
B	3.70	5.20	0.146	0.205
C	22.00	-	0.866	-
D	2.00	2.80	0.079	0.110

