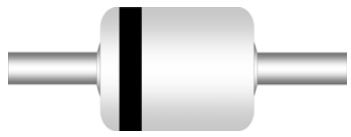
Small Signal Product

1W DO-41 Zener Volatge 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
- Pb free and RoHS compliant



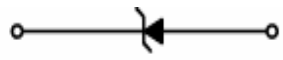
Pb-Free

DO-41

RoHS COMPLIANT

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: ' 260^{o}C/10 s
- Weight: 0.270~0.290 grams
- Marking code: 1N47XXG for ± 5% Vz



Cathode Anode

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	1	W
Thermal Resistance Junction to Lead	R_{jl}	53.5	^{o}C/W
Thermal Resistance Junction to Ambient	R_{ja}	100	^{o}C/W
OperatingTemperature Range	T_{OPR}	- 65 to + 200	^{o}C
Storage Temperature Range	T_{STG}	- 65 to + 200	^{o}C

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

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ELECTRICAL CHARACTERISTICS (Ratings at T_A=25°C ambient temperature unless otherwise specified)

V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types

Device Type	V_Z @ I_{ZT} (V) Typ.	I_{ZT} (mA)	Z_{ZT} @ O_{ZK} (Ω) Max.	I_{ZK} (mA)	Z_{ZK} @ I_{ZK} (Ω) Max.	I_R @ V_R (μA) Max.	V_R (V)
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 (V_Z)

The type numbers listed have a standard tolerance on the nmial zener voltage of ±5%.

2. SPECIAL AVAILABLE INCLUDE

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

3. ZENER VOLTAGE (V_Z) MEASUREMENT

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

4. ZENER IMPEDANCE (Z_Z) 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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ORDERING INFORMATION				
PART NO.	**PACKING CODE**	**GREEN COMPOUND CODE**	**PACKAGE**	**PACKING**
1N47xxG (Note1,2)	R0	G	DO-41	5K / 14" Reel
	A0	G	DO-41	3K / BOX (Ammo)

Note 1: "xx" is Device Code from "28" through "58"

Note 2: Whole series with green compound.

EXAMPLE				
PREFERRED PART NO.	**PART NO.**	**PACKING CODE**	**PACKING CODE SUFFIX**	**DESCRIPTION**
1N4728G R0G	1N4728G	R0	G	Green compound

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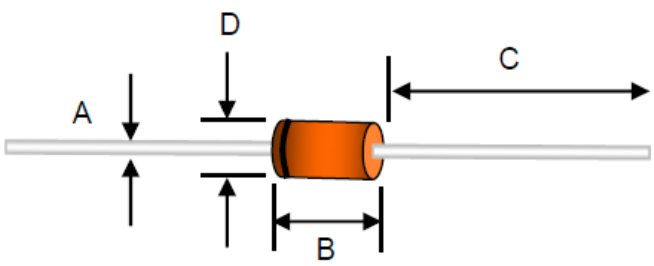
PACKAGE OUTLINE DIMENSIONS

DO-41



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	0.50	0.90	0.020	0.035
B	3.50	5.20	0.138	0.205
C	22.00	--	0.866	--
D	1.80	2.80	0.071	0.110

MARKING DIAGRAM

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