

# 1N4728AG ~ 1N4764AG

$V_Z$  : 3.3 to 100V

$P_D$  : 1.0 Watt

### FEATURES :

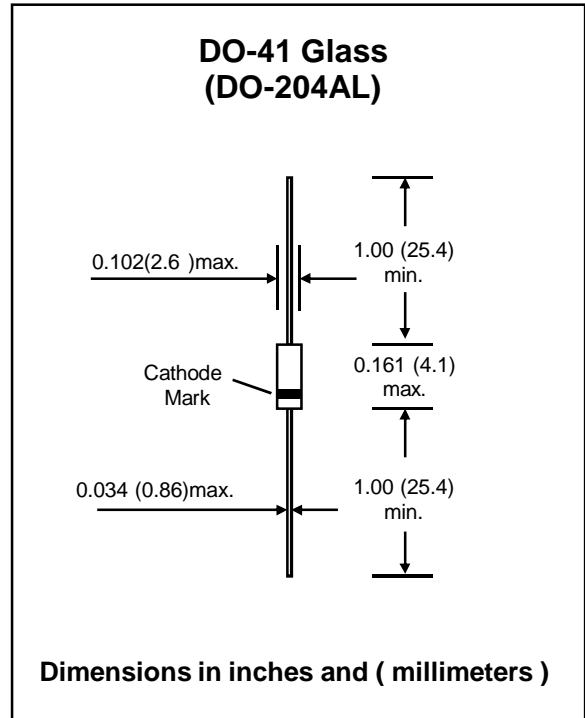
- Silicon planar power zener diodes.
- For use in stabilizing and clipping circuits with high power rating.
- Standard zener voltage tolerance is  $\pm 5\%$
- Other tolerances are available upon request.
- **Pb / RoHS Free**

### MECHANICAL DATA :

**Case:** DO-41 Glass Case

**Weight:** approx. 0.35g

## ZENER DIODES



### Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Maximum Forward Voltage at $I_F = 200$ mA.	$V_F$	1.2	V
Power Dissipation	$P_D$	1.0 <sup>(1)</sup>	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	100 <sup>(1)</sup>	K / W
Junction temperature	$T_J$	175	°C
Storage temperature range	$T_S$	-55 to + 175	°C

**Note:**

(1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.



## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type No.	Zener Voltage <sup>(3)</sup>			Maximum Zener Impedance <sup>(1)</sup>			Maximum Reverse Leakage Current		Maximum Regulator Current	Maximum Surge Current	
	V <sub>Z</sub> (V) @ 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> <sup>(2)</sup>	I <sub>RM</sub>	
	Min.	Nom.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(mA)
1N4728AG	3.1	3.3	3.5	76.0	10	400	1.0	100	1.0	276	1380
1N4729AG	3.4	3.6	3.8	69.0	10	400	1.0	100	1.0	252	1260
1N4730AG	3.7	3.9	4.1	64.0	9.0	400	1.0	50	1.0	234	1190
1N4731AG	4.1	4.3	4.5	58.0	9.0	400	1.0	10	1.0	217	1070
1N4732AG	4.5	4.7	4.9	53.0	8.0	500	1.0	10	1.0	193	970
1N4733AG	4.8	5.1	5.4	49.0	7.0	550	1.0	10	1.0	178	890
1N4734AG	5.3	5.6	5.9	45.0	5.0	600	1.0	10	2.0	162	810
1N4735AG	5.9	6.2	6.5	41.0	2.0	700	1.0	10	3.0	146	730
1N4736AG	6.5	6.8	7.1	37.0	3.5	700	1.0	10	4.0	133	660
1N4737AG	7.1	7.5	7.9	34.0	4.0	700	0.5	10	5.0	121	605
1N4738AG	7.8	8.2	8.6	31.0	4.5	700	0.5	10	6.0	110	550
1N4739AG	8.6	9.1	9.6	28.0	5.0	700	0.5	10	7.0	100	500
1N4740AG	9.5	10	10.5	25.0	7.0	700	0.25	10	7.6	91	454
1N4741AG	10.5	11	11.6	23.0	8.0	700	0.25	5.0	8.4	83	414
1N4742AG	11.4	12	12.6	21.0	9.0	700	0.25	5.0	9.1	76	380
1N4743AG	12.4	13	13.7	19.0	10	700	0.25	5.0	9.9	69	344
1N4744AG	14.3	15	15.8	17.0	14	700	0.25	5.0	11.4	61	305
1N4745AG	15.2	16	16.8	15.5	16	700	0.25	5.0	12.2	57	285
1N4746AG	17.1	18	18.9	14.0	20	750	0.25	5.0	13.7	50	250
1N4747AG	19.0	20	21.0	12.5	22	750	0.25	5.0	15.2	45	225
1N4748AG	20.9	22	23.1	11.5	23	750	0.25	5.0	16.7	41	205
1N4749AG	22.8	24	25.2	10.5	25	750	0.25	5.0	18.2	38	190
1N4750AG	25.7	27	28.4	9.5	35	750	0.25	5.0	20.6	34	170
1N4751AG	28.5	30	31.5	8.5	40	1000	0.25	5.0	22.8	30	150
1N4752AG	31.4	33	34.7	7.5	45	1000	0.25	5.0	25.1	27	135
1N4753AG	34.2	36	37.8	7.0	50	1000	0.25	5.0	27.4	25	125
1N4754AG	37.1	39	41.0	6.5	60	1000	0.25	5.0	29.7	23	115
1N4755AG	40.9	43	45.2	6.0	70	1500	0.25	5.0	32.7	22	110
1N4756AG	44.7	47	49.4	5.5	80	1500	0.25	5.0	35.8	19	95
1N4757AG	48.5	51	53.6	5.0	95	1500	0.25	5.0	38.8	18	90
1N4758AG	53.2	56	58.8	4.5	110	2000	0.25	5.0	42.6	16	80
1N4759AG	58.9	62	65.1	4.0	125	2000	0.25	5.0	47.1	14	70
1N4760AG	64.6	68	71.4	3.7	150	2000	0.25	5.0	51.7	13	65
1N4761AG	71.3	75	78.8	3.3	175	2000	0.25	5.0	56.0	12	60
1N4762AG	77.9	82	86.1	3.0	200	3000	0.25	5.0	62.2	11	55
1N4763AG	86.5	91	95.6	2.8	250	3000	0.25	5.0	69.2	10	50
1N4764AG	95.0	100	105.0	2.5	350	3000	0.25	5.0	76.0	9.0	45

**Notes:**

- (1) The Zener impedance is derived from the 1kHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units
- (2) Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature
- (3) Measured under thermal equilibrium and DC test conditions.
- (4) Standard Zener voltage tolerance is ± 5% tolerance. Other Zener voltages and tolerances are available upon request.