1N4728 thru 1N4764

Zener Diodes

Vz Range: 3.3 to 100V Power Dissipation: 1.0W

Features

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with high power rating.
- Standard zener voltage tolerance is ±10%. Add suffix "A" for ±5% tolerance. Other zener voltages and tolerances are available upon request.
- These diodes are also available in the MELF case with type designation ZM4728 thru ZM4764.
- For bidirectional product, contact local technical sales office.

RoHS COMPLIANT

DO-204AL (DO-41 Glass)

Suffix: "-G" to order Molded Plastic Package

DO-204AL (DO-41)

Suffix: "-P" to order Molded Plastic Package

Mechanical Data

- Case: DO-41 glass or DO-41 plastic case
- Weight: approx. 0.35g

Maximum Ratings and Thermal Characteristics

(T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Zener Current	-	See Next Page	-
Power Dissipation at T_{AMB}=50°C[1]	P_{tot}	1	W
Thermal Resistance Junction to Ambient Air[1]	$R_{\theta JA}$	170	°C/W
Junction Temperature	T_J	175	°C
Storage Temperature Range	T_{STG}	-65 to +175	°C

Note:

1. Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature.

Electrical Characteristics

(T_A=25°C, unless otherwise specified) Maximum V_F=1.2V at I_F=200mA

Part Number	Nominal Zener Voltage at I_{ZT} V_Z (V)	Test Current I_{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Surge Current at T_A=25°C I_R (mA)	Maximum Regulator Current at T_A=50°C I_{ZM} (mA)
			Z_{ZT} @ I_{ZT} (Ω)	Z_{ZK} (Ω)	at I_{ZK} (mA)	I_R (uA)	at V_R (V)		
1N4728	3.30	76.00	10.00	400	1.00	100	1.00	1380	276
1N4729	3.60	69.00	10.00	400	1.00	100	1.00	1260	252
1N4730	3.90	64.00	9.00	400	1.00	50	1.00	1190	234
1N4731	4.30	58.00	9.00	400	1.00	10	1.00	1070	217
1N4732	4.70	53.00	8.00	500	1.00	10	1.00	970	193
1N4733	5.10	49.00	7.00	550	1.00	10	1.00	890	178
1N4734	5.60	45.00	5.00	600	1.00	10	2.00	810	162

GOOD-ARK
SEMICONDUCTOR

1N4728 thru 1N4764

Zener Diodes

Vz Range: 3.3 to 100V Power Dissipation: 1.0W

Electrical Characteristics

(T_A=25°C, unless otherwise specified) Maximum V_F=1.2V at I_F=200mA

Part Number	Nominal Zener Voltage at I_{ZT} V_Z (V)	Test Current I_{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Surge Current at T_A=25°C I_R (mA)	Maximum Regulator Current at T_A=50°C I_{ZM} (mA)
			Z_{ZT} at I_{ZT} (Ω)	Z_{ZK}	at I_{ZK} (mA)	I_R (uA)	at V_R (V)		
1N4735	6.20	41.00	2.00	700	1.00	10	3.00	730	146
1N4736	6.80	37.00	3.50	700	1.00	10	4.00	660	133
1N4737	7.50	34.00	4.00	700	0.50	10	5.00	605	121
1N4738	8.20	31.00	4.50	700	0.50	10	6.00	550	110
1N4739	9.10	28.00	5.00	700	0.50	10	7.00	500	100
1N4740	10.00	25.00	7.00	700	0.25	10	7.60	454	91
1N4741	11.00	23.00	8.00	700	0.25	5	8.40	414	83
1N4742	12.00	21.00	9.00	700	0.25	5	9.10	380	76
1N4743	13.00	19.00	10.00	700	0.25	5	9.90	344	69
1N4744	15.00	17.00	14.00	700	0.25	5	11.40	304	61
1N4745	16.00	15.50	16.00	700	0.25	5	12.20	285	57
1N4746	18.00	14.00	20.00	750	0.25	5	13.70	250	50
1N4747	20.00	12.50	22.00	750	0.25	5	15.20	225	45
1N4748	22.00	11.50	23.00	750	0.25	5	16.70	205	41
1N4749	24.00	10.50	25.00	750	0.25	5	18.20	190	38
1N4750	27.00	9.50	35.00	750	0.25	5	20.60	170	34
1N4751	30.00	8.50	40.00	1000	0.25	5	22.80	150	30
1N4752	33.00	7.50	45.00	1000	0.25	5	25.10	135	27
1N4753	36.00	7.00	50.00	1000	0.25	5	27.40	125	25
1N4754	39.00	6.50	60.00	1000	0.25	5	29.70	115	23
1N4755	43.00	6.00	70.00	1500	0.25	5	32.70	110	22
1N4756	47.00	5.50	80.00	1500	0.25	5	35.80	95	19
1N4757	51.00	5.00	95.00	1500	0.25	5	38.80	90	18
1N4758	56.00	4.50	110.00	2000	0.25	5	42.60	80	16
1N4759	62.00	4.00	125.00	2000	0.25	5	47.10	70	14
1N4760	68.00	3.70	150.00	2000	0.25	5	51.70	65	13
1N4761	75.00	3.30	175.00	2000	0.25	5	56.00	60	12
1N4762	82.00	3.00	200.00	3000	0.25	5	62.20	55	11
1N4763	91.00	2.80	250.00	3000	0.25	5	69.20	50	10
1N4764	100.00	2.50	350.00	3000	0.25	5	76.00	45	9

1N4728 thru 1N4764

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Notes:

1. The Zener impedance is derived from the 1 KHZ AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. 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.

Ratings and Characteristic Curves

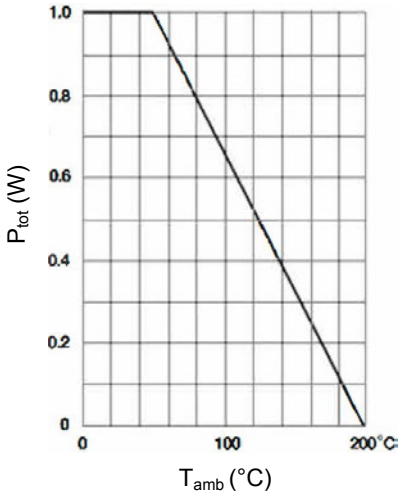
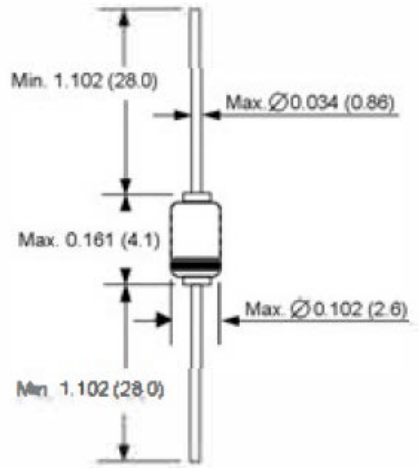


Figure 1. Admissible Power Dissipation vs. Ambient Temperature

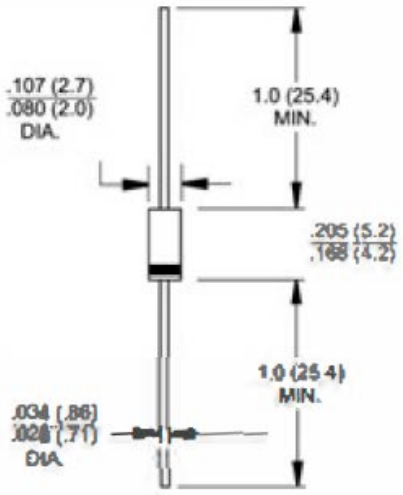
Package Outline Dimensions

DO-204AL (DO-41 Glass)



Dimensions in Inches and (Millimeters)

DO-204AL (DO-41)



Dimensions in Inches and (Millimeters)