Silicon Power Zener Diodes

Features

- Silicon Planar Power Zener Diodes
- For use in stabilizing and clipping circuits with high power rating.
- Standard Zener voltage tolerance suffix "A" for ± 5 % tolerance. Other Zener voltages and tolerances are available upon request.

Applications

Voltage stabilization

Mechanical Data

Case: DO-41 Glass Case
Weight: approx. 350 mg
Packaging Codes/Options:
TR / 5k per 13 " reel , 25k/box
TAP / 5k per Ammo mag. (52 mm tape), 25k/box

Absolute Maximum Ratings

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation	$T_{amb} \leq 50$ °C	P_{Diss}	1	W
Z-current		I_Z	P_V/V_Z	mA
Junction temperature		T_j	200	°C
Storage temperature range		T_{stg}	- 65 to + 200	°C
Junction ambient	l = 9.5 mm (3/8 "), T_L = constant	R_{thJA}	100	K/W

Electrical Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	I_F = 200 mA	V_F			1.2	V

Electrical Characteristics

1N4728A...1N4764A

Partnumber	Nominal Zener Voltage[1]	Test Current	Maximum Dynamic Impedance			Maximum Reverse Leakage Current		Surge curent	Maximum Regulator Current[2]
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	Test Voltage V_R	I_R @ T_{amb} = 25 °C	I_{ZM} @ T_{amb} = 50 °C
	V	mA	Ω	Ω	mA	µA	V	mA	mA
1N4728A	3.3	76	10	400	1	100	1	1380	276
1N4729A	3.6	69	10	400	1	100	1	1260	252
1N4730A	3.9	64	9	400	1	50	1	1190	234
1N4731A	4.3	58	9	400	1	10	1	1070	217
1N4732A	4.7	53	8	500	1	10	1	970	193
1N4733A	5.1	49	7	550	1	10	1	890	178
1N4734A	5.6	45	5	600	1	10	2	810	162
1N4735A	6.2	41	2	700	1	10	3	730	146
1N4736A	6.8	37	0.5	700	1	10	4	660	133
1N4737A	7.5	34	0	700	0.5	10	5	605	121
1N4738A	8.2	31	0.5	700	0.5	10	6	550	110
1N4739A *	9.1	28	0	700	0.5	10	7	500	100
1N4740A *	10	25	7	700	0.25	10	7.6	454	91
1N4741A *	11	23	8	700	0.25	5	8.4	414	83
1N4742A *	12	21	9	700	0.25	5	9.1	380	76
1N4743A *	13	19	10	100	0.25	5	9.9	344	69
1N4744A *	15	17	14	700	0.25	5	11.4	304	61
1N4745A *	16	15.5	16	700	0.25	5	12.2	285	57
1N4746A *	18	14	20	750	0.25	5	13.7	250	50
1N4747A *	20	12.5	22	750	0.25	5	15.2	225	45
1N4748A *	22	11.5	23	750	0.25	5	16.7	205	41
1N4749A *	24	10.5	25	750	0.25	5	18.2	190	38
1N4750A *	27	9.5	35	750	0.25	5	20.6	170	34
1N4751A *	30	8.5	40	1000	0.25	5	22.8	150	30
1N4752A *	33	7.5	45	1000	0.25	5	25.1	135	27
1N4753A *	36	7	50	1000	0.25	5	27.4	125	25
1N4754A *	39	6.5	60	1000	0.25	5	29.7	115	23
1N4755A *	43	6	70	1500	0.25	5	32.7	110	22
1N4756A *	47	5.5	80	1500	0.25	5	35.8	95	19
1N4757A *	51	5	95	1500	0.25	5	38.8	90	18
1N4758A *	56	4.5	110	2000	0.25	5	42.6	80	16
1N4759A *	62	4	125	2000	0.25	5	47.1	70	14
1N4760A *	68	3.7	150	2000	0.25	5	51.7	65	13
1N4761A *	75	3.3	175	2000	0.25	5	56	60	12
1N4762A *	82	3.0	200	3000	0.25	5	62.2	55	11
1N4763A *	91	2.8	250	3000	0.25	5	69.2	50	10
1N4764A *	100	2.5	350	3000	0.25	5	76.0	45	9

[1] Based on dc-measurement at theral equilibrium while maitaining the lead temperature (T_L) at 30 °C + 1 °C, 9.5 mm (3/8 ") from the diode body.

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

[*] Additionnal measurement of Voltage group 9V1 to 75 at 95 % $V_{zmin} \leq 35$ nA at T_j 25 °C

Package Dimensions in mm