



TIGER ELECTRONIC CO.,LTD

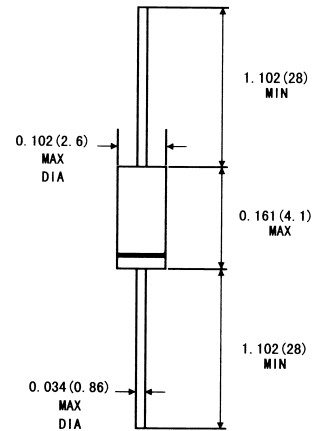
1N4728 THRU 1N4764

1W SILICON PLANAR ZENER DIODES

FEATURES

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with high power rating.
- Standards Zener voltage toerance is $\pm 10\%$
- Add suffix "A" for $\pm 5\%$ tolerance Other tolerance available upon request

DO-41(GLASS)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- **Case:** DO-41 glass case
- **weight:** Approx. 0.35 gram

ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES)($T_A=25^{\circ}\text{C}$)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation at $T_A=25^{\circ}\text{C}$	P_{tot}	1 ¹⁾	mW
Junction temperature	T_J	175	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-65 to +175	$^{\circ}\text{C}$

1)Valid provided that a distance of 8mm from case are kept at ambient temperature

ELECTRCAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

	Symbols	Min	Typ	Max	Units
Thermal resistance junction to ambient	R_{thA}			170 ¹⁾	$^{\circ}\text{C/W}$
Forward voltage at $I_F=200\text{mA}$	V_F			1.2	V

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Type	Nominal Zener Voltage ³⁾	Test Current	Maximum Zener Impedance ¹⁾			Maximum reverse leakage current		Surge current	Maximum regulator Current ²⁾
	at I _{ZT} V _Z V	I _{ZT} mA	at I _{ZT} Z _{ZT} Ω	Z _{ZK} Ω	at I _{ZK} mA	I _R μA	at V _R V	at T _A =0.25 I _R mA	I _{ZM} mA
1N4728	3.3	76	10	400	1.0	100	1.0	1380	276
1N4729	3.6	69	10				1.0	1260	252
1N4730	3.9	64	9			50	1.0	1190	234
1N4731	4.3	58	9				1.0	1070	217
1N4732	4.7	53	8	500		10	1.0	970	193
1N4733	5.1	49	7	550			1.0	890	178
1N4734	5.6	45	5	600			2.0	810	162
1N4735	6.2	41	2	700			3.0	730	146
1N4736	6.8	37	3.5				4.0	660	133
1N4737	7.5	34	4.0		5.0		5.0	605	121
1N4738	8.2	31	4.5				6.0	550	110
1N4739	9.1	28	5.0				7.0	500	100
1N4740	10	25	7		0.25	5	7.6	454	91
1N4741	11	23	8	8.4			414	83	
1N4742	12	21	9	9.1			380	76	
1N4743	13	19	10	9.9			344	69	
1N4744	15	17	14	11.4			304	61	
1N4745	16	15.5	16	12.2			285	57	
1N4746	18	14	20	13.7			250	50	
1N4747	20	12.5	22	15.2			225	45	
1N4748	22	11.5	23	750			16.7	205	41
1N4749	24	10.5	25				18.2	190	38
1N4750	27	9.5	35				20.6	170	34
1N4751	30	8.5	40				22.8	150	30
1N4752	33	7.5	45	1000			25.1	135	27
1N4753	36	7.0	50				27.4	125	25
1N4754	39	6.5	60				29.7	115	23
1N4755	43	6.0	70				32.7	110	22
1N4756	47	5.5	80	1500			35.8	95	19
1N4757	51	5.0	95				38.8	90	18
1N4758	56	4.5	110				42.6	80	16
1N4759	62	4.0	125	2000			47.1	70	14
1N4760	68	3.7	150				51.7	65	13
1N4761	75	3.3	175				56.0	60	12
1N4762	82	3.0	200				62.2	55	11
1N4763	91	2.8	250	3000			69.2	50	10
1N4764	100	2.5	350				76.0	45	9

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_{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 1N4728 THRU 1N4764

Admissible power dissipation versus ambient temperature
(Valid provided that leads at a distance of 10mm from case
are kept at ambient temperature)

