

ZENER DIODES

POWER DISSIPATION: 1.0W

FEATURES

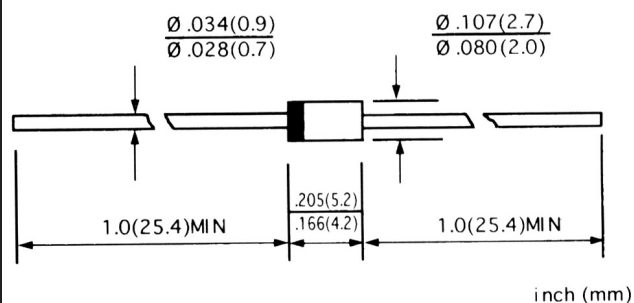
- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with high power rating.
- Standard Zener voltage tolerance is $\pm 10\%$. Add suffix 'A' for $\pm 5\%$ tolerance. Other Zener Voltage upon request.

MECHANICAL DATA

Case: DO-41, Glass Case

Weight: Approx.0.35 gram

DO-41(GLASS)



MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameters	SYMBOL	VALUE	UNIT
Zener Current (see Table "Characteristics")			
Power Dissipation at $T_{amb}=25^{\circ}\text{C}$	P_{tot}	1.0 ⁽¹⁾	mW
Maximum Junction Temperature	T_j	175	°C
Storage Temperature Range	T_s	-65---+175	°C

Parameters	SYMBOL	MIN	TYP	MAX	UNIT
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	-	-	170 ⁽¹⁾	K/mW
Forward Voltage at $I_F=200\text{mA}$	V_F	-	-	1.2	V

NOTE: (1) Valid provided that leads at a distance of 8mm from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified

Type	Zener Voltage range ³⁾		Maximum Zener Impedance ¹⁾			Reverse leakage current		Surge current	Maximum regulator current ²⁾
	V _{znom} V	I _{ZT} Ma	r _{ZT} Ω	r _{ZK} at I _{ZK} Ω	I _{ZK} mA	I _R at V _R μA	V	at T _A =25°C I _{RM} A	I _{ZM} mA
1N4728	3.3	76	10	400	1.0	150	1	1375	275
1N4729	3.6	69	10	400	1.0	100	1	1260	252
1N4730	3.9	64	9	400	1.0	100	1	1190	234
1N4731	4.3	58	9	400	1.0	50	1	1070	217
1N4732	4.7	53	8	500	1.0	10	1	970	193
1N4733	5.1	49	7	550	1.0	10	1	890	178
1N4734	5.6	45	5	600	1.0	10	2	810	162
1N4735	6.2	41	2	700	1.0	10	3	730	146
1N4736	6.8	37	3.5	700	1.0	10	4	660	133
1N4737	7.5	34	4.0	700	0.5	10	5	605	121
1N4738	8.2	31	4.5	700	0.5	10	6	550	110
1N4739	9.1	28	5.0	700	0.5	10	7	500	100
1N4740	10	25	7	700	0.25	10	7.6	454	91
1N4741	11	23	8	700	0.25	5	8.4	414	83
1N4742	12	21	9	700	0.25	5	9.1	380	76
1N4743	13	19	10	700	0.25	5	9.9	344	69
1N4744	15	17	14	700	0.25	5	11.4	304	61
1N4745	16	15.5	16	700	0.25	5	12.2	285	57
1N4746	18	14	20	750	0.25	5	13.7	250	50
1N4747	20	12.5	22	750	0.25	5	15.2	225	45
1N4748	22	11.5	23	750	0.25	5	16.7	205	41
1N4749	24	10.5	25	750	0.25	5	18.2	190	38
1N4750	27	9.5	35	750	0.25	5	20.6	170	34
1N4751	30	8.5	40	1000	0.25	5	22.8	150	30
1N4752	33	7.5	45	1000	0.25	5	25.1	135	27
1N4753	36	7.0	50	1000	0.25	5	27.4	125	25
1N4754	39	6.5	60	1000	0.25	5	29.7	115	23
1N4755	43	6.0	70	1500	0.25	5	32.7	110	22
1N4756	47	5.5	80	1500	0.25	5	35.8	95	19
1N4757	51	5.0	95	1500	0.25	5	38.8	90	18
1N4758	56	4.5	110	2000	0.25	5	42.6	80	16
1N4759	62	4.0	125	2000	0.25	5	47.1	70	14
1N4760	68	3.7	150	2000	0.25	5	51.7	65	13
1N4761	75	3.3	175	2000	0.25	5	56.0	60	12
1N4762	82	3.0	200	3000	0.25	5	62.2	55	11
1N4763	91	2.8	250	3000	0.25	5	69.2	50	10
1N4764	100	2.5	350	3000	0.25	5	76.0	45	9

¹⁾ The Zener Impedance is derived from the 60 Hz 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 leads at a distance of 8mm from case are kept at ambient temperature.

³⁾ Measured under thermal equilibrium and DC test conditions.