



1N4728 THRU 1N4771

Zener Voltage: 3.3-200V Peak Pulse Power: 1.0W

ZENER DIODES

Features

- ◆ ZENER impedance at low current is small
- ◆ High reliability
- ◆ And welding hot 250 °C 10s
- ◆ Resistance to soldering heat:250 °C /10S, terminal9.5mm.

Mechanical Data

Case : JEDEC DO-41 Molded plastic body

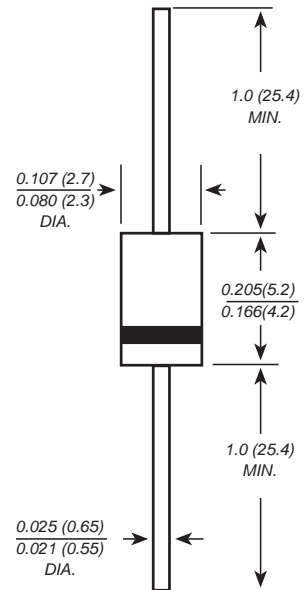
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.012 ounce, 0.33 grams

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Parameters	SYMBOL	VALUE	UNITS
ZENER Current	I_Z MAX	See table	mA
Power dissipation @ $T_L=50^\circ\text{C}$	P_t	1.0	W
forward voltage@ $I_F=100\text{mA}$	V_F	1.5	V
Thermal Resistances (Junction to Ambient ,Note1)	$R_{\theta(ja)}$	32	$^\circ\text{C/W}$
Store temperature range	T_j, T_{STG}	-55 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_A=25^\circ\text{C}$ unless otherwise noted)

TYPE NUMBER (Note 1)	Nominal ZENER Voltage	Test Current	Max ZENER Impedance			Maximum Reverse Leakage Current		Maximum DC ZENER Current of $V_{(BR)}$
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$ (Note 2)	$Z_{ZK} @ I_{ZK}$ (Note 2)	I_{ZK}	$I_R @ V_R$	V_R	$I_{ZM} @ 50^\circ\text{C}$ (Note 3)
	V	mA	Ω	Ω	mA	Ma120	V	mA
1N4728	3.3	76	10	400	1.0	100	1.0	276
1N4729	3.6	69	10	400	1.0	100	1.0	252
1N4730	3.9	64	9	400	1.0	50	1.0	234
1N4731	4.3	58	9	400	1.0	10	1.0	217
1N4732	4.7	53	8	500	1.0	10	1.0	193
1N4733	5.1	49	7	550	1.0	10	1.0	178
1N4734	5.6	45	5	600	1.0	10	2.0	162
1N4735	6.2	41	2	700	1.0	10	3.0	146



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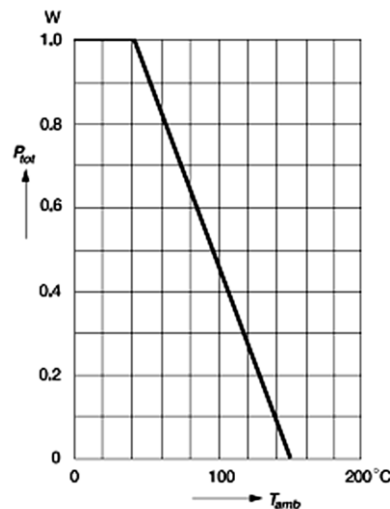
ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)

ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)								
TYPE NUMBER (Note 1)	Nominal ZENER Voltage	Test Current	Max ZENER Impedance			Maximum Reverse Leakage Current		Maximum DC ZENER Current of V _{BR}
	V _{Z@I_{ZT}}	I _{ZT}	Z _{ZT} @ I _{ZT} (Note 2)	Z _{ZK} @ I _{ZK} (Note 2)	I _{ZK}	I _{R@V_R}	V _R	I _{ZM} @ 50°C (Note 3)
	V	mA	Ω	Ω	mA	Ma120	V	mA
1N4736	6.8	37	3.5	700	1.0	10	4.0	133
1N4737	7.5	34	4.0	700	0.5	10	5.0	121
1N4738	8.2	31	4.5	700	0.5	10	6.0	110
1N4739	9.1	28	5.0	700	0.25	10	7.0	100
1N4740	10	25	7	700	0.25	10	7.6	91
1N4741	11	23	8	700	0.25	5	8.4	83
1N4742	12	21	9	700	0.25	5	9.1	76
1N4743	13	19	10	700	0.25	5	9.9	69
1N4744	15	17	14	700	0.25	5	11.4	61
1N4745	16	15.5	16	700	0.25	5	12.2	57
1N4746	18	14	20	750	0.25	5	13.7	50
1N4747	20	12.5	22	750	0.25	5	15.2	45
1N4748	22	11.5	23	750	0.25	5	16.7	41
1N4749	24	10.5	25	750	0.25	5	18.2	38
1N4750	27	9.5	35	750	0.25	5	20.6	34
1N4751	30	8.5	40	1000	0.25	5	22.8	30
1N4752	33	7.5	45	1000	0.25	5	25.1	27
1N4753	36	7.0	50	1000	0.25	5	27.4	25
1N4754	39	6.5	60	1000	0.25	5	29.7	23
1N4755	43	6.0	70	1500	0.25	5	32.7	22
1N4756	47	5.5	80	1500	0.25	5	35.8	19
1N4757	51	5.0	95	1500	0.25	5	38.8	18
1N4758	56	4.5	110	2000	0.25	5	42.6	16
1N4759	62	4.0	125	2000	0.25	5	47.1	14
1N4760	68	3.7	150	2000	0.25	5	51.7	13
1N4761	75	3.3	175	2000	0.25	5	56.0	12
1N4762	82	3.0	200	3000	0.25	5	62.2	11
1N4763	91	2.8	250	3000	0.25	5	69.2	10
1N4764	100	2.5	350	3000	0.25	5	76.0	9
1N4765	110	2.3	450	4000	0.25	5	83.6	7.2
1N4766	120	2.0	550	4500	0.25	5	91.2	7.0
1N4767	130	1.9	700	5000	0.25	5	98.8	6.0
1N4768	150	1.7	1000	6000	0.25	5	114.0	5.5
1N4769	160	1.6	1100	6500	0.25	5	121.6	5.2
1N4770	180	1.4	1200	7000	0.25	5	136.8	4.6
1N47712	200	1.2	1500	8000	0.25	5	152.0	4.0

NOTE :

1. TOLERANCE DESIGNATION Standard tolerance on nominal zener voltage is 10%, A 5% tolerance may be obtained by adding the suffix "A" to the number.
2. The zener impedance is derived from 60 seconds AC voltage, which results when an AC current having an rms value equal to 10% of the DC zener current (IZT or IZK) is superimposed on IZT or IZK.
3. nominal Vz values shown. These values do not represent absolute limits. The actual steady state current-voltage product must not exceed the power rating.

Admissible power dissipation versus ambient temperature



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