Certificate Number: Q10561

Certificate Number: E17276

1N4728 - 1N4764
Z1110 - Z1200

SILICON ZENER DIODES

V_Z : 3.3 - 200 Volts
P_D : 1 Watt

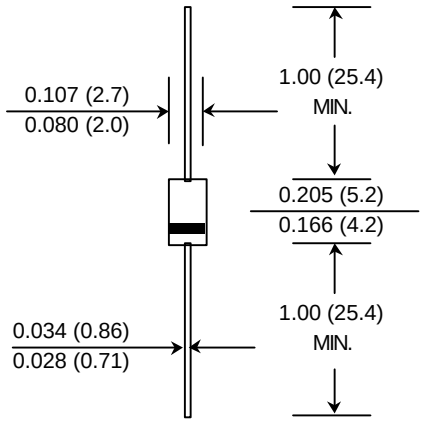
FEATURES :

* Complete voltage range 3.3 to 200 Volts
* High peak reverse power dissipation
* High reliability
* Low leakage current

MECHANICAL DATA

* Case : DO-41 Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.339 gram

DO - 41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherw ise specified

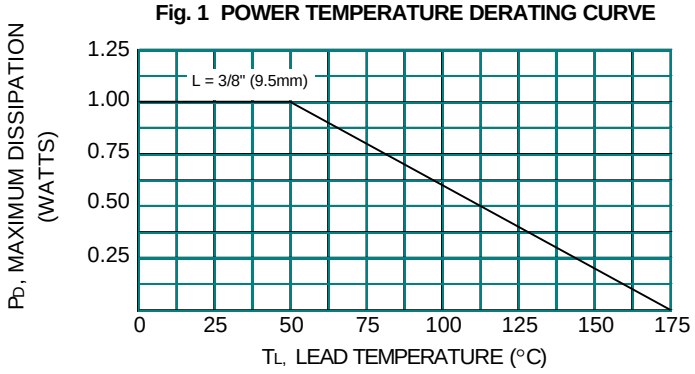
Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 50 °C (Note1)	P_D	1.0	Watt
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\theta JA}$	170	K / W
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	Ts	- 55 to + 175	°C

Note :

(1) T_L = Lead temperature at 3/8 " (9.5mm) from body

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

Fig. 1 POWER TEMPERATURE DERATING CURVE



UPDATE : SEPTEMBER 9, 2000

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ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
1N4728	3.3	76.0	10	400	1.0	100	1.0	276
1N4729	3.6	69.0	10	400	1.0	100	1.0	252
1N4730	3.9	64.0	9.0	400	1.0	50	1.0	234
1N4731	4.3	58.0	9.0	400	1.0	10	1.0	217
1N4732	4.7	53.0	8.0	500	1.0	10	1.0	193
1N4733	5.1	49.0	7.0	550	1.0	10	1.0	178
1N4734	5.6	45.0	5.0	600	1.0	10	2.0	162
1N4735	6.2	41.0	2.0	700	1.0	10	3.0	146
1N4736	6.8	37.0	3.5	700	1.0	50	4.0	133
1N4737	7.5	34.0	4.0	700	0.5	50	5.0	121
1N4738	8.2	31.0	4.5	700	0.5	50	6.0	110
1N4739	9.1	28.0	5.0	700	0.5	50	7.0	100
1N4740	10	25.0	7.0	700	0.25	50	7.6	91
1N4741	11	23.0	8.0	700	0.25	50	8.4	83
1N4742	12	21.0	9.0	700	0.25	5.0	9.1	76
1N4743	13	19.0	10	700	0.25	5.0	9.9	69
1N4744	15	17.0	14	700	0.25	5.0	11.4	61
1N4745	16	15.5	16	700	0.25	5.0	12.2	57
1N4746	18	14.0	20	750	0.25	5.0	13.7	50
1N4747	20	12.5	22	750	0.25	5.0	15.2	45
1N4748	22	11.5	23	750	0.25	5.0	16.7	41
1N4749	24	10.5	25	750	0.25	5.0	18.2	38
1N4750	27	9.5	35	750	0.25	5.0	20.6	34
1N4751	30	8.5	40	1000	0.25	5.0	22.8	30
1N4752	33	7.5	45	1000	0.25	5.0	25.1	27
1N4753	36	7.0	50	1000	0.25	5.0	27.4	25
1N4754	39	6.5	60	1000	0.25	5.0	29.7	23
1N4755	43	6.0	70	1500	0.25	5.0	32.7	22
1N4756	47	5.5	80	1500	0.25	5.0	35.8	19
1N4757	51	5.0	95	1500	0.25	5.0	38.8	18
1N4758	56	4.5	110	2000	0.25	5.0	42.6	16
1N4759	62	4.0	125	2000	0.25	5.0	47.1	14
1N4760	68	3.7	150	2000	0.25	5.0	51.7	13
1N4761	75	3.3	175	2000	0.25	5.0	56.0	12
1N4762	82	3.0	200	3000	0.25	5.0	62.2	11
1N4763	91	2.8	250	3000	0.25	5.0	69.2	10
1N4764	100	2.5	350	3000	0.25	5.0	76.0	9.0
Z1110	110	2.3	450	4000	0.25	5.0	83.6	8.6
Z1120	120	2.0	550	4500	0.25	5.0	91.2	7.8
Z1130	130	1.9	700	5000	0.25	5.0	98.8	7.0
Z1150	150	1.7	1000	6000	0.25	5.0	114.0	6.4
Z1160	160	1.6	1100	6500	0.25	5.0	121.6	5.8
Z1180	180	1.4	1200	7000	0.25	5.0	136.8	5.2
Z1200	200	1.2	1500	8000	0.25	5.0	152.0	4.7

Note :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 10%. A standard tolerance of ± 5% on individual units is also available and is indicated by suffixing "A" to the standard type number.