

1N4728A - 1N4764A Z1110A - Z1200A

V_Z : 3.3 - 200 Volts
P_D : 1 Watt

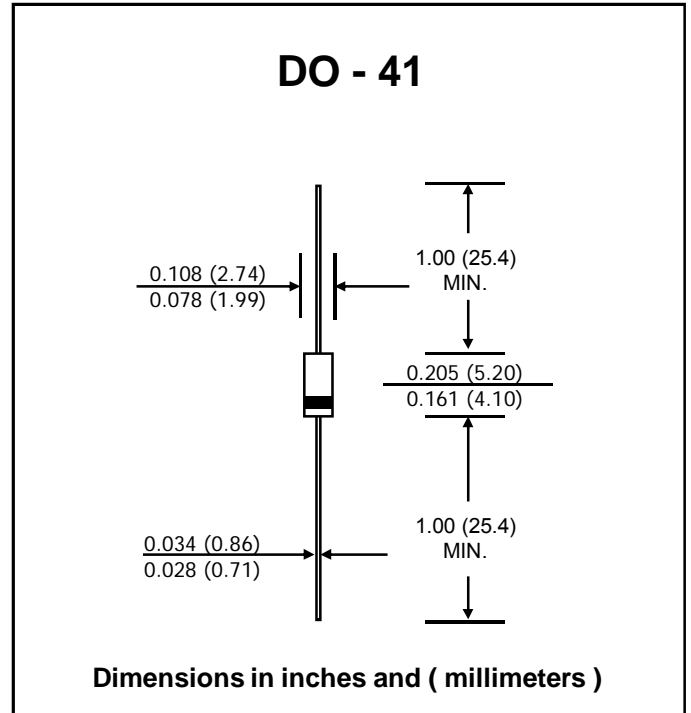
FEATURES :

- * Complete voltage range 3.3 to 200 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.335 gram

SILICON ZENER DIODES



MAXIMUM RATINGS

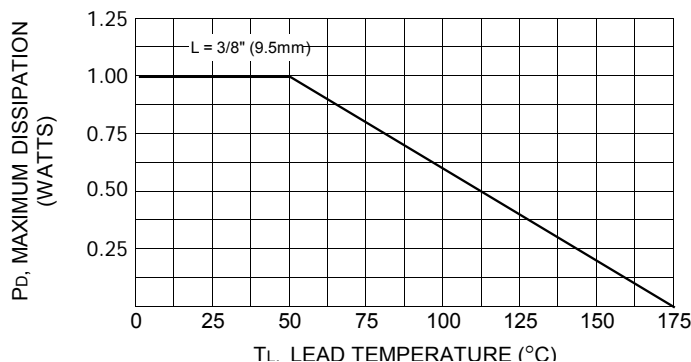
Rating at 25 °C ambient temperature unless otherwise specified

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 _{θJA}	170	K / W
Junction Temperature Range	T _J	- 55 to + 175	°C
Storage Temperature Range	T _{STG}	- 55 to + 175	°C

Notes :

- (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





ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Type	Zener Voltage			Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current	
	$V_Z^{(1)}$ (V) @ I_{ZT}			Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}	$I_{RM}^{(2)}$	
	Min.	Nom.	Max.	(mA)	(Ω)	(Ω)	(mA)	(μ A)	(V)	(mA)	(mApk)
1N4728A	3.1	3.3	3.5	76.0	10	400	1.0	100	1.0	276	1380
1N4729A	3.4	3.6	3.8	69.0	10	400	1.0	100	1.0	252	1260
1N4730A	3.7	3.9	4.1	64.0	9.0	400	1.0	50	1.0	234	1190
1N4731A	4.1	4.3	4.5	58.0	9.0	400	1.0	10	1.0	217	1070
1N4732A	4.5	4.7	4.9	53.0	8.0	500	1.0	10	1.0	193	970
1N4733A	4.8	5.1	5.4	49.0	7.0	550	1.0	10	1.0	178	890
1N4734A	5.3	5.6	5.9	45.0	5.0	600	1.0	10	2.0	162	810
1N4735A	5.9	6.2	6.5	41.0	2.0	700	1.0	10	3.0	146	730
1N4736A	6.5	6.8	7.1	37.0	3.5	700	1.0	10	4.0	133	660
1N4737A	7.1	7.5	7.9	34.0	4.0	700	0.5	10	5.0	121	605
1N4738A	7.8	8.2	8.6	31.0	4.5	700	0.5	10	6.0	110	550
1N4739A	8.6	9.1	9.6	28.0	5.0	700	0.5	10	7.0	100	500
1N4740A	9.5	10	10.5	25.0	7.0	700	0.25	10	7.6	91	454
1N4741A	10.5	11	11.6	23.0	8.0	700	0.25	5.0	8.4	83	414
1N4742A	11.4	12	12.6	21.0	9.0	700	0.25	5.0	9.1	76	380
1N4743A	12.4	13	13.7	19.0	10	700	0.25	5.0	9.9	69	344
1N4744A	14.3	15	15.8	17.0	14	700	0.25	5.0	11.4	61	305
1N4745A	15.2	16	16.8	15.5	16	700	0.25	5.0	12.2	57	285
1N4746A	17.1	18	18.9	14.0	20	750	0.25	5.0	13.7	50	250
1N4747A	19.0	20	21.0	12.5	22	750	0.25	5.0	15.2	45	225
1N4748A	20.9	22	23.1	11.5	23	750	0.25	5.0	16.7	41	205
1N4749A	22.8	24	25.2	10.5	25	750	0.25	5.0	18.2	38	190
1N4750A	25.7	27	28.4	9.5	35	750	0.25	5.0	20.6	34	170
1N4751A	28.5	30	31.5	8.5	40	1000	0.25	5.0	22.8	30	150
1N4752A	31.4	33	34.7	7.5	45	1000	0.25	5.0	25.1	27	135
1N4753A	34.2	36	37.8	7.0	50	1000	0.25	5.0	27.4	25	125
1N4754A	37.1	39	41.0	6.5	60	1000	0.25	5.0	29.7	23	115
1N4755A	40.9	43	45.2	6.0	70	1500	0.25	5.0	32.7	22	110
1N4756A	44.7	47	49.4	5.5	80	1500	0.25	5.0	35.8	19	95
1N4757A	48.5	51	53.6	5.0	95	1500	0.25	5.0	38.8	18	90
1N4758A	53.2	56	58.8	4.5	110	2000	0.25	5.0	42.6	16	80
1N4759A	58.9	62	65.1	4.0	125	2000	0.25	5.0	47.1	14	70
1N4760A	64.6	68	71.4	3.7	150	2000	0.25	5.0	51.7	13	65
1N4761A	71.3	75	78.8	3.3	175	2000	0.25	5.0	56.0	12	60
1N4762A	77.9	82	86.1	3.0	200	3000	0.25	5.0	62.2	11	55
1N4763A	86.5	91	95.6	2.8	250	3000	0.25	5.0	69.2	10	50
1N4764A	95.0	100	105.0	2.5	350	3000	0.25	5.0	76.0	9.0	45
Z1110A	104.5	110	115.5	2.3	450	4000	0.25	5.0	83.6	8.6	40
Z1120A	114.0	120	126.0	2.0	550	4500	0.25	5.0	91.2	7.8	37
Z1130A	123.5	130	136.5	1.9	700	5000	0.25	5.0	98.8	7.0	34
Z1150A	142.5	150	157.5	1.7	1000	6000	0.25	5.0	114.0	6.4	30
Z1160A	152.0	160	168.0	1.6	1100	6500	0.25	5.0	121.6	5.8	28
Z1180A	171.0	180	189.0	1.4	1200	7000	0.25	5.0	136.8	5.2	25
Z1200A	190.0	200	210.0	1.2	1900	9990	0.25	5.0	152.0	4.7	22

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method