1W,3.3 - 100V Zener Diodes

Features

- Low leakage current
- Available in unidirectional
- Glass passivated junction
- Zener voltage tolerance is ±5%
- Total power dissipation: Max 1W
- Silicon Planar Power Zener Diodes
- Moisture sensitivity: level 1, per J-STD-020

DO-41(DO-204AL)

Applications

Protection from high voltage, high energy transients, voltage stabilization.

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Zener voltage	V_Z	See Next Table	V
Power dissipation at T_L=75℃	P_{tot}	1	W
Typical Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	170	℃/W
Maximum junction temperature	T_J	175	℃
Storage temperature range	T_{STG}	-65 to +175	℃

Note：
1. Valid provided that leads at a distance of 9.5mm from case are kept at ambient temperature.

Electrical Characteristics (TA = 25 °C unless otherwise noted)

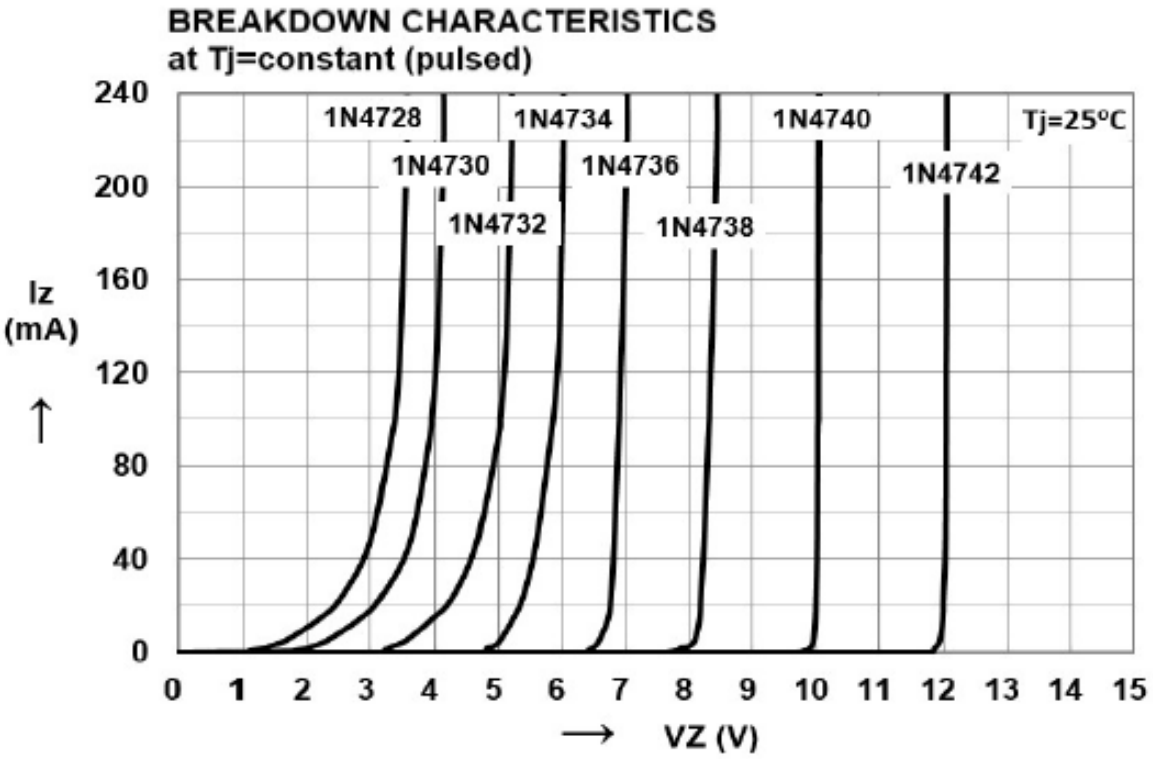
Part Number	V_Z at I_{ZT} (V)			Maximum dynamic resistance				Maximum reverse leakage current		Maximum Zener Current
	Min	Typ	Max	Z_{ZT}@I_{ZT} (Ω)	I_{ZT}(mA)	Z_{ZK}@I_{ZK} (Ω)	I_{ZK}(mA)	I_R @ V_R(uA)	V_R(V)	IZM (mA)
1N4728A	3.14	3.3	3.47	10	76	400	1	100	1	276
1N4729A	3.42	3.6	3.78	10	69	400	1	100	1	252
1N4730A	3.71	3.9	4.10	9	64	400	1	50	1	234
1N4731A	4.09	4.3	4.52	9	58	400	1	10	1	217
1N4732A	4.47	4.7	4.94	8	53	500	1	10	1	193
1N4733A	4.85	5.1	5.36	7	49	550	1	10	1	178
1N4734A	5.32	5.6	5.88	5	45	600	1	10	2	162
1N4735A	5.89	6.2	6.51	2	41	700	1	10	3	146
1N4736A	6.46	6.8	7.14	3.5	37	700	1	10	4	133
1N4737A	7.13	7.5	7.88	4	34	700	0.5	10	5	121
1N4738A	7.79	8.2	8.61	4.5	31	700	0.5	10	6	110
1N4739A	8.65	9.1	9.56	5	28	700	0.5	10	7	100
1N4740A	9.50	10	10.50	7	25	700	0.25	10	7.6	91
1N4741A	10.45	11	11.55	8	23	700	0.25	5	8.4	83
1N4742A	11.40	12	12.60	9	21	700	0.25	5	9.1	76
1N4743A	12.35	13	13.65	10	19	700	0.25	5	9.9	69
1N4744A	14.25	15	15.75	14	17	700	0.25	5	11.4	61
1N4745A	15.20	16	16.80	16	15.5	700	0.25	5	12.2	57
1N4746A	17.10	18	18.90	20	14	750	0.25	5	13.7	50
1N4747A	19.00	20	21.00	22	12.5	750	0.25	5	15.2	45
1N4748A	20.90	22	23.10	23	11.5	750	0.25	5	16.7	41
1N4749A	22.80	24	25.20	25	10.5	750	0.25	5	18.2	38
1N4750A	25.65	27	28.35	35	9.5	750	0.25	5	20.6	34
1N4751A	28.50	30	31.50	40	8.5	1000	0.25	5	22.8	30
1N4752A	31.35	33	34.65	45	7.5	1000	0.25	5	25.1	27
1N4753A	34.20	36	37.80	50	7	1000	0.25	5	27.4	25
1N4754A	37.05	39	40.95	60	6.5	1000	0.25	5	29.7	23
1N4755A	40.85	43	45.15	70	6	1500	0.25	5	32.7	22
1N4756A	44.65	47	49.35	80	5.5	1500	0.25	5	35.8	19
1N4757A	48.45	51	53.55	95	5	1500	0.25	5	38.8	18
1N4758A	53.20	56	58.80	110	4.5	2000	0.25	5	42.6	16
1N4759A	58.90	62	65.10	125	4	2000	0.25	5	47.1	14
1N4760A	64.60	68	71.40	150	3.7	2000	0.25	5	51.7	13
1N4761A	71.25	75	78.75	175	3.3	2000	0.25	5	56	12
1N4762A	77.90	82	86.10	200	3	3000	0.25	5	62.2	11
1N4763A	86.45	91	95.55	250	2.8	3000	0.25	5	69.2	10

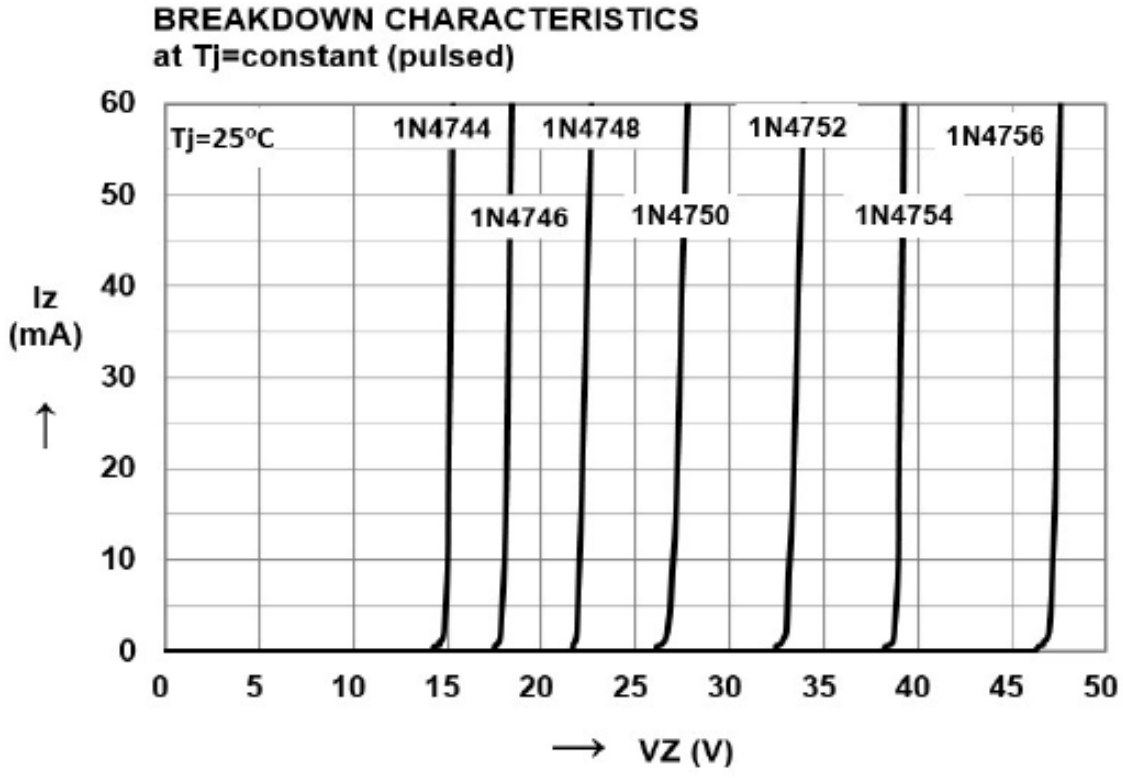
Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	V_Z at I_{ZT} (V)			Maximum dynamic resistance				Maximum reverse leakage current		Maximum Zener Current
	Min	Typ	Max	Z_{ZT}@I_{ZT} (Ω)	I_{ZT}(mA)	Z_{ZK}@I_{ZK} (Ω)	I_{ZK}(mA)	I_R @ V_R(uA)	V_R(V)	IZM (mA)
1N4764A	95.00	100	105	350	2.5	3000	0.25	5	76	9

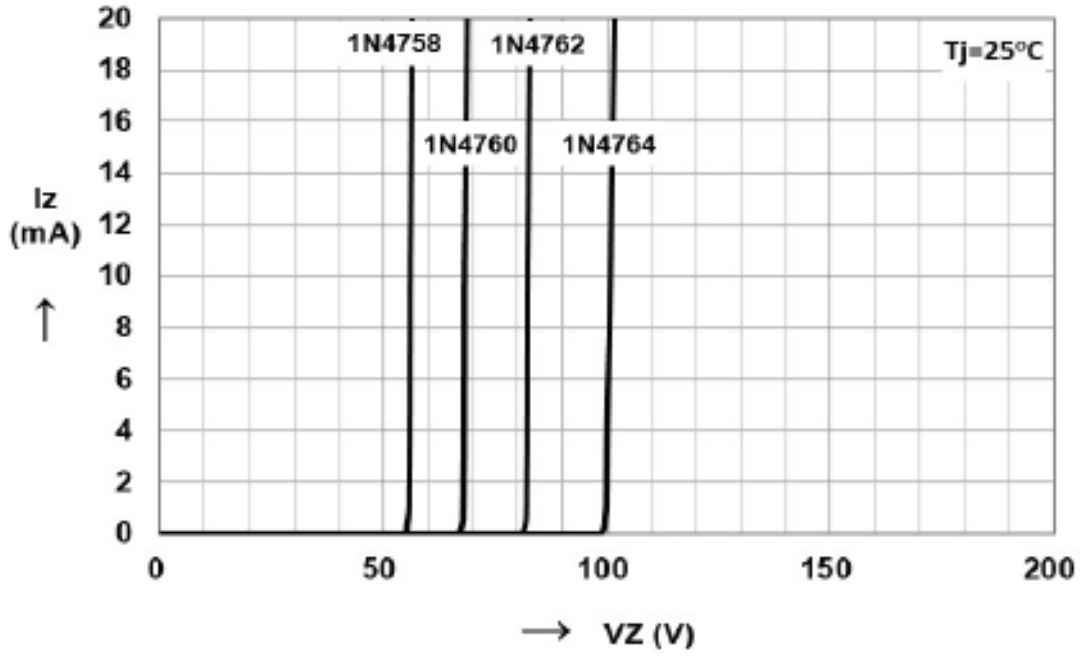
Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

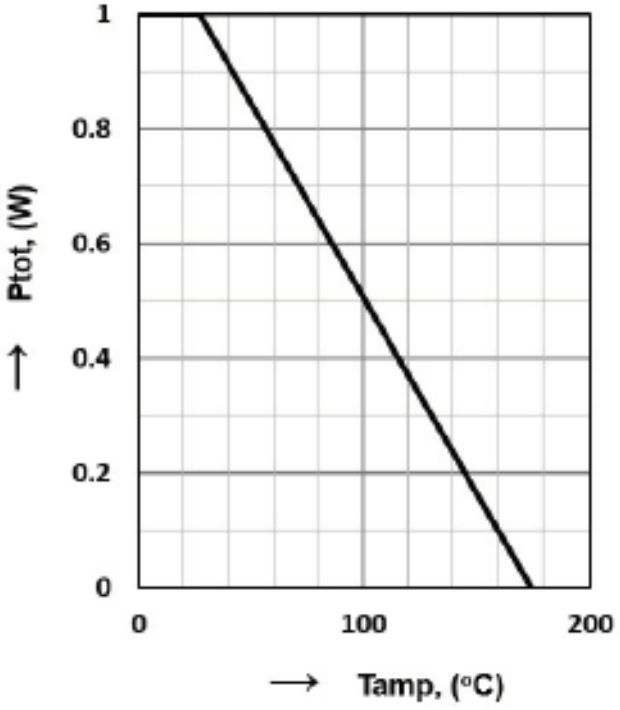




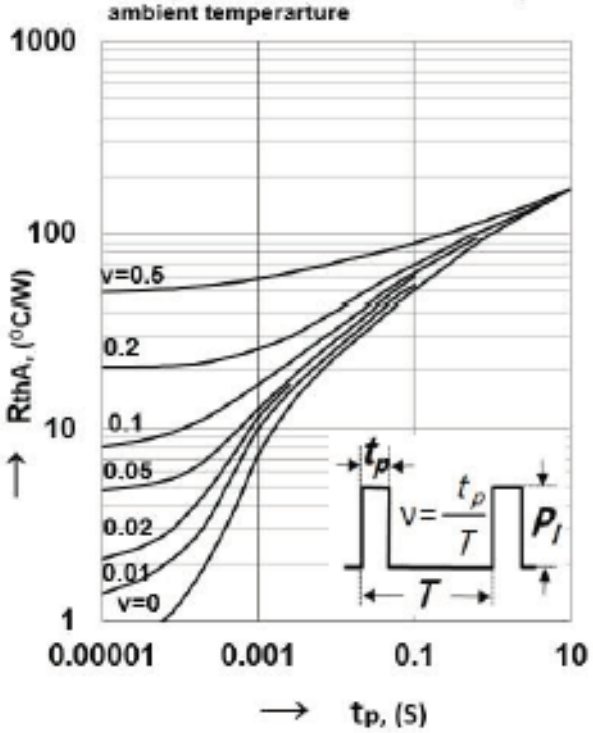
BREAKDOWN CHARACTERISTICS
at Tj=constant (pulsed)



Admissible power dissipation
versus ambient temperature
Valid provided that electrodes are kept at ambient temperature



Pulse thermal resistance
versus pulse duration
Valid provided that electrodes are kept at ambient temperarture

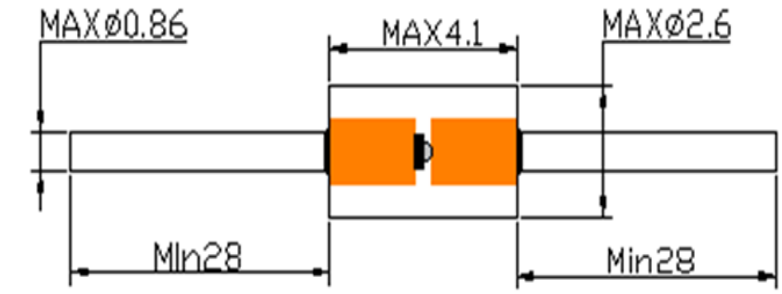


Package Outline Dimensions

in inches (millimeters)

DO-41 (DO-204AL)

CASE DIMENSION (DO-41 Type, 52mm), Unit: mm



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.31	Modify document format

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