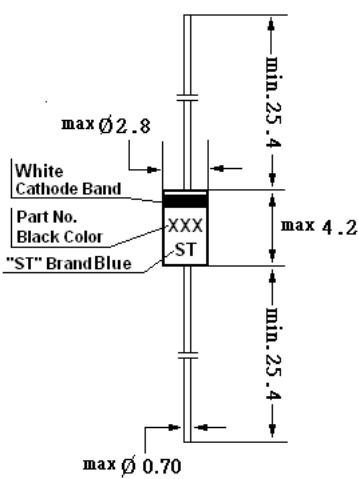


1N4727A...1N4764A

SILICON PLANAR POWER ZENER DIODES

for use in stabilizing and clipping circuits with high power rating.



Glass Case JEDEC DO-41
Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

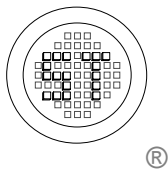
Parameter	Symbol	Value	Unit
Power Dissipation at $T_{amb} = 25\text{ }^{\circ}\text{C}$	P_{tot}	1 ¹⁾	W
Junction Temperature	T_j	200	$^{\circ}\text{C}$
Storage Temperature Range	T_s	- 65 to + 200	$^{\circ}\text{C}$

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

Characteristics at $T_{amb} = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	170 ¹⁾	K/W
Forward Voltage at $I_F = 200\text{mA}$	V_F	-	1.2	V

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



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Type	Zener Voltage Range ³⁾		Maximum Zener Impedance ¹⁾			Reverse Leakage Current		Surge current ⁴⁾	Maximum regulator current ²⁾
	V _Z	I _{ZT}	r _{ZJT}	r _{ZJK}	at I _{ZK}	I _R	at V _R	at T _A = 25 °C	
	V	mA	Ω	Ω	mA	μA	V	I _R mA	
1N4727A	2.85...3.15	83	10	400	1	150	1	1375	275
1N4728A	3.13...3.47	76	10	400	1	150	1	1375	275
1N4729A	3.42...3.78	69	10	400	1	100	1	1260	252
1N4730A	3.7...4.1	64	9	400	1	100	1	1190	234
1N4731A	4.08...4.52	58	9	400	1	50	1	1070	217
1N4732A	4.46...4.94	53	8	500	1	10	1	970	193
1N4733A	4.84...5.36	49	7	550	1	10	1	890	178
1N4734A	5.32...5.88	45	5	600	1	10	2	810	162
1N4735A	5.89...6.51	41	2	700	1	10	3	730	146
1N4736A	6.46...7.14	37	3.5	700	1	10	4	660	133
1N4737A	7.12...7.88	34	4	700	0.5	10	5	605	121
1N4738A	7.79...8.61	31	4.5	700	0.5	10	6	550	110
1N4739A	8.64...9.56	28	5	700	0.5	10	7	500	100
1N4740A	9.5...10.5	25	7	700	0.25	10	7.6	454	91
1N4741A	10.45...11.55	23	8	700	0.25	5	8.4	414	83
1N4742A	11.4...12.6	21	9	700	0.25	5	9.1	380	76
1N4743A	12.35...13.65	19	10	700	0.25	5	9.9	344	69
1N4744A	14.25...15.75	17	14	700	0.25	5	11.4	304	61
1N4745A	15.2...16.8	15.5	16	700	0.25	5	12.2	285	57
1N4746A	17.1...18.9	14	20	750	0.25	5	13.7	250	50
1N4747A	19...21	12.5	22	750	0.25	5	15.2	225	45
1N4748A	20.9...23.1	11.5	23	750	0.25	5	16.7	205	41
1N4749A	22.8...25.2	10.5	25	750	0.25	5	18.2	190	38
1N4750A	25.65...28.35	9.5	35	750	0.25	5	20.6	170	34
1N4751A	28.5...31.5	8.5	40	1000	0.25	5	22.8	150	30
1N4752A	31.35...34.65	7.5	45	1000	0.25	5	25.1	135	27
1N4753A	34.2...37.8	7	50	1000	0.25	5	27.4	125	25
1N4754A	37.05...40.95	6.5	60	1000	0.25	5	29.7	115	23
1N4755A	40.85...45.15	6	70	1500	0.25	5	32.7	110	22
1N4756A	44.65...49.35	5.5	80	1500	0.25	5	35.8	95	19
1N4757A	48.45...53.55	5	95	1500	0.25	5	38.8	90	18
1N4758A	53.2...58.8	4.5	110	2000	0.25	5	42.6	80	16
1N4759A	58.9...65.1	4	125	2000	0.25	5	47.1	70	14
1N4760A	64.6...71.4	3.7	150	2000	0.25	5	51.7	65	13
1N4761A	71.25...78.75	3.3	175	2000	0.25	5	56	60	12
1N4762A	77.9...86.1	3	200	3000	0.25	5	62.2	55	11
1N4763A	86.45...95.55	2.8	250	3000	0.25	5	69.2	50	10
1N4764A	95...105	2.5	350	3000	0.25	5	76	45	9

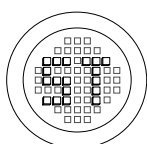
¹⁾ The Zener Impedance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

²⁾ Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

³⁾ Measured under thermal equilibrium and DC test conditions.

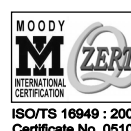
⁴⁾ The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current I_{ZT}.

⁵⁾ Tested with pulses t_p = 20 ms.



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ISO 14001:2004
Certificate No. 7116

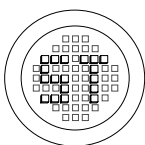
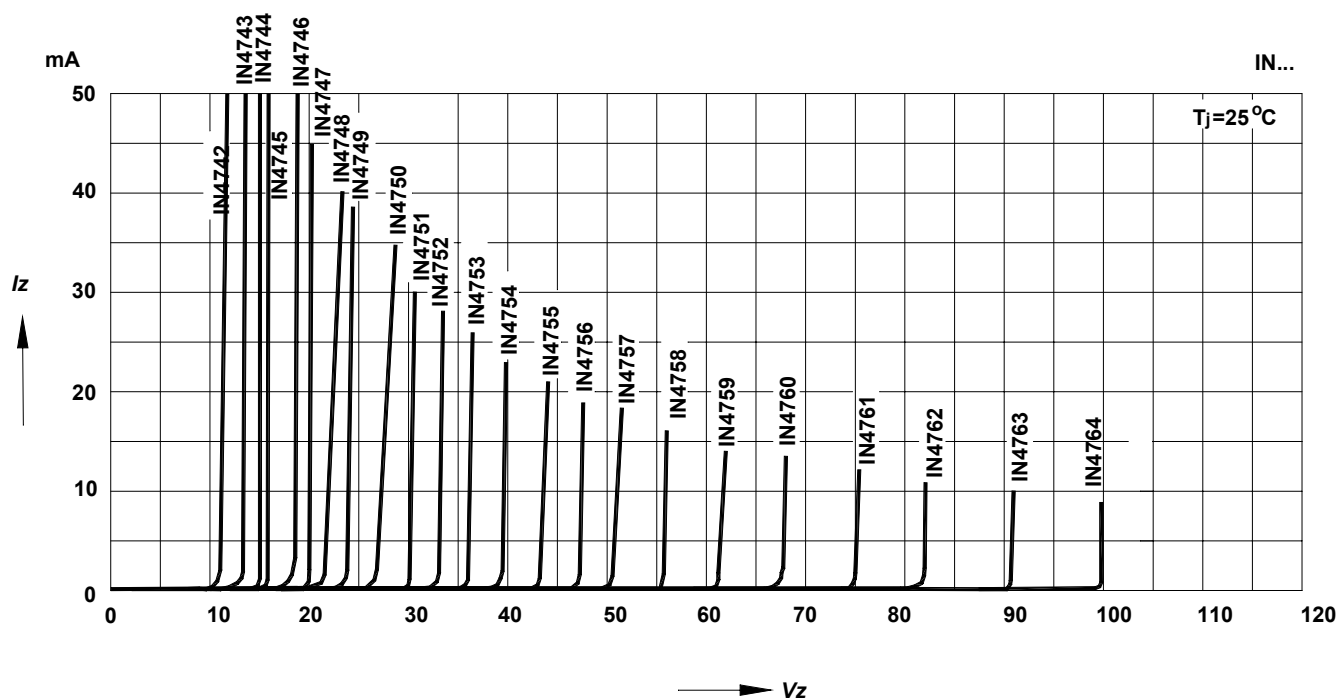
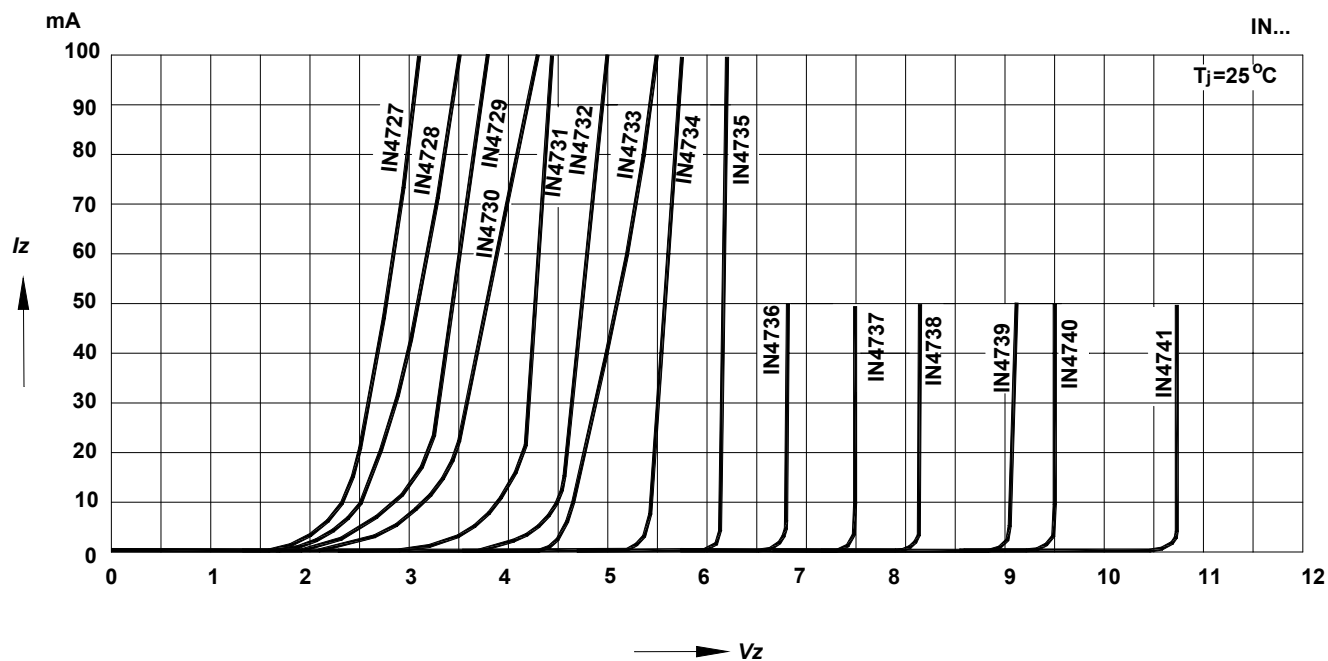


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Breakdown characteristics

$T_j = \text{constant (pulsed)}$



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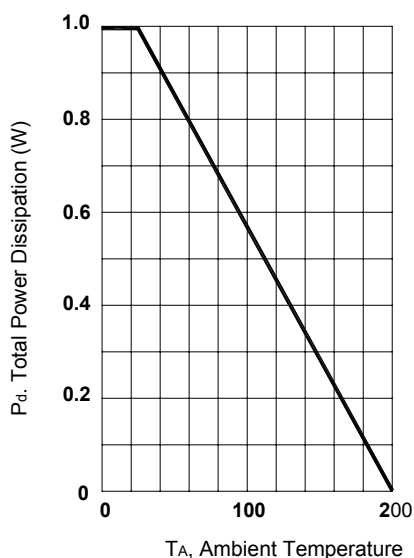


Fig. 1 Power Dissipation vs Ambient Temperature

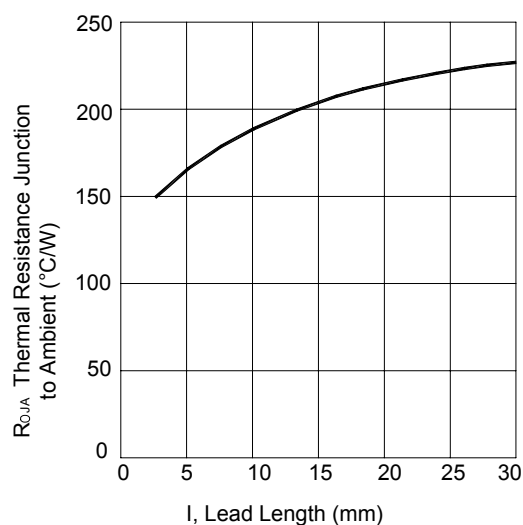


Fig. 2 Typical Thermal Resistance vs. Lead Length

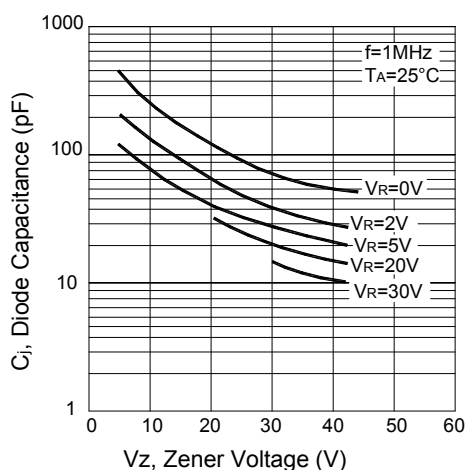


Fig. 3 Junction Capacitance vs Zener Voltage

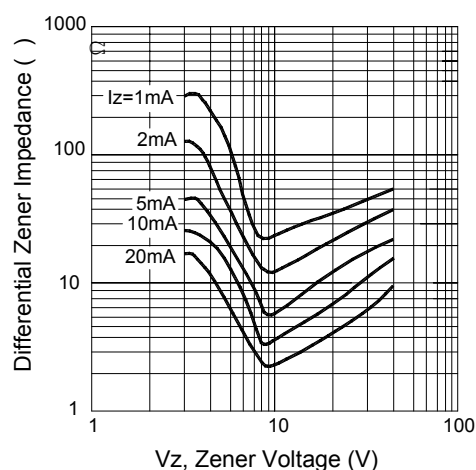
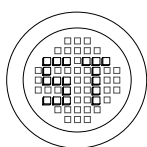


Fig. 4 Typical Zener Impedance vs. Zener Voltage



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