

Zener Diodes

1N4728A - 1N4758A

June 2007

Tolerance = 5%



DO-41 Glass case COLOR BAND DENOTES CATHODE

Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_{D}	Power Dissipation @ TL ≤ 50°C, Lead Length = 3/8"	1.0	W
	Derate above 50°C	6.67	mW/°C
T _J , T _{STG}	Operating and Storage Temperature Range	-65 to +200	°C

^{*} These ratings are limiting values above which the serviceability of the diode may be impaired.

Electrical Characteristics T_a = 25°C unless otherwise noted

	V _Z (V) @ I _Z (Note 1)			Test Current	Max. Zener Impedance			Leakage Current	
Device	Min.	Тур.	Max.	I _Z (mA)	Z _Z @ I _Z (Ω)	Z _{ZK} @ I _{ZK} (Ω)	I _{ZK} (mA)	I _R (μ A)	V _R (V)
1N4728A	3.315	3.3	3.465	76	10	400	1	100	1
1N4729A	3.42	3.6	3.78	69	10	400	1	100	1
1N4730A	3.705	3.9	4.095	64	9	400	1	50	1
1N4731A	4.085	4.3	4.515	58	9	400	1	10	1
1N4732A	4.465	4.7	4.935	53	8	500	1	10	1
1N4733A	4.845	5.1	5.355	49	7	550	1	10	1
1N4734A	5.32	5.6	5.88	45	5	600	1	10	2
1N4735A	5.89	6.2	6.51	41	2	700	1	10	3
1N4736A	6.46	6.8	7.14	37	3.5	700	1	10	4
1N4737A	7.125	7.5	7.875	34	4	700	0.5	10	5
1N4738A	7.79	8.2	8.61	31	4.5	700	0.5	10	6
1N4739A	8.645	9.1	9.555	28	5	700	0.5	10	7
1N4740A	9.5	10	10.5	25	7	700	0.25	10	7.6
1N4741A	10.45	11	11.55	23	8	700	0.25	5	8.4
1N4742A	11.4	12	12.6	21	9	700	0.25	5	9.1

	V _Z (V) @ I _Z (Note 1)			Test Current	Max. Zener Impedance			Leakage Current	
Device	Min.	Тур.	Max.	I _Z (mA)	Z _Z @ I _Z (Ω)	Z _{ZK} @ I _{ZK} (Ω)	I _{ZK} (mA)	Ι _R (μ A)	V _R (V)
1N4743A	12.35	13	13.65	19	10	700	0.25	5	9.9
1N4744A	14.25	15	15.75	17	14	700	0.25	5	11.4
1N4745A	15.2	16	16.8	15.5	16	700	0.25	5	12.2
1N4746A	17.1	18	18.9	14	20	750	0.25	5	13.7
1N4747A	19	20	21	12.5	22	750	0.25	5	15.2
1N4748A 1N4749A	20.9	22	23.1	11.5	23	750	0.25	5	16.7
1N4750A	22.8	24	25.2	10.5	25	750	0.25	5	18.2
1N4751A	25.65	27	28.35	9.5	35	750	0.25	5	20.6
1N4752A	28.5 31.35	30 33	31.5 34.65	8.5 7.5	40 45	1000 1000	0.25 0.25	5 5	22.8 25.1
1N4753A	34.2	36	37.8	7	50	1000	0.25	5	27.4
1N4754A	37.05	39	40.95	6.5	60	1000	0.25	5	29.7
1N4755A	40.85	43	45.15	6	70	1500	0.25	5	32.7
1N4756A	44.65	47	49.35	5.5	80	1500	0.25	5	35.8
1N4757A	48.45	51	53.55	5	95	1500	0.25	5	38.8
1N4758A	53.2	56	58.8	4.5	110	2000	0.25	5	42.6

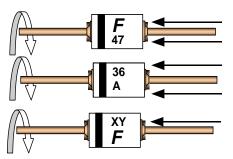
Top Mark Information

Device	Line 1	Line 2	Line 3	Line 4	Line 5
1N4728A	LOGO	47	28	Α	XY
1N4729A	LOGO	47	29	Α	XY
1N4730A	LOGO	47	30	Α	XY
1N4731A	LOGO	47	31	Α	XY
1N4732A	LOGO	47	32	Α	XY
1N4733A	LOGO	47	33	Α	XY
1N4734A	LOGO	47	34	Α	XY
1N4735A	LOGO	47	35	Α	XY
1N4736A	LOGO	47	36	Α	XY
1N4737A	LOGO	47	37	Α	XY
1N4738A	LOGO	47	38	Α	XY
1N4739A	LOGO	47	39	Α	XY
1N4740A	LOGO	47	40	Α	XY
1N4741A	LOGO	47	41	Α	XY
1N4742A	LOGO	47	42	Α	XY
1N4743A	LOGO	47	43	Α	XY
1N4744A	LOGO	47	44	Α	XY
1N4745A	LOGO	47	45	Α	XY
1N4746A	LOGO	47	46	Α	XY
1N4747A	LOGO	47	47	Α	XY
1N4748A	LOGO	47	48	Α	XY
1N4749A	LOGO	47	49	Α	XY
1N4750A	LOGO	47	50	Α	XY
1N4751A	LOGO	47	51	Α	XY
1N4752A	LOGO	47	52	Α	XY
1N4753A	LOGO	47	53	Α	XY
1N4754A	LOGO	47	54	Α	XY
1N4755A	LOGO	47	55	Α	XY
1N4756A	LOGO	47	56	Α	XY
1N4757A	LOGO	47	57	Α	XY
1N4758A	LOGO	47	58	Α	XY

^{1.} Zener Voltage (V_Z)

The zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature (T_L) at 30°C ± 1°C and 3/8" lead length.

Top Mark Information (Continued)



1st line: F - Fairchild Logo

 2^{nd} line: Device Name - 3^{rd} to 4^{th} characters of device name for 1Nxx series or 4^{th} to 6^{th} characters for BZXyy series

3rd line: Device Name - 5th to 6th characters of device name for 1Nxx series or Voltage rating for BZXyy series

4th line: Device Name - 7th to 8th characters of device name for 1Nxx series or Large Die identification only for BZXyy series

5th line: Date Code - Two Digit - Six Weeks Date Code

General Requirements:

- 1.0 Cathode Band
- 2.0 First Line: F Fairchild Logo
- 3.0 Second Line: Device name For 1Nxx series: 3^{rd} to 4^{th} characters of the device name. For BZxx series: 4^{th} to 6^{th} characters of the device name.
- 4.0 Third Line: Device name For 1Nxx series: 5^{th} to 6^{th} characters of the device name.

For BZXyy series: Voltage rating

5.0 Third Line: Device name - For 1Nxx series: 7th to 8th characters of the device name. (the 8th character is the large die identification)

For BZXyy series: Large Die Identification character

6.0 Fourth Line: Date Code - Two Digit - Six Weeks Date Code

Where: X represents the last digit of the calendar year

Y represents the Six weeks numeric code

- 7.0 Devices shall be marked as required in the device specification (PID or FSC Test Spec).
- 8.0 Maximum no. of marking lines: 5
- 9.0 Maximum no. of digits per line: 3
- 10.0 FSC logo must be 20 % taller than the alphanumeric marking and should occupy the 2 characters of the specified line.
- 11.0 Marking Font: Arial (Except FSC Logo)
- 12.0 First character of each marking line must be aligned vertically.
- 13.0 All device markings must be based on Fairchild device specification.





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