# imall

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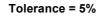
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**ON Semiconductor®** 

## 1N4728A - 1N4758A Zener Diodes





COLOR BAND DENOTES CATHODE

### Absolute Maximum Ratings \* T<sub>a</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation @ TL $\leq$ 50°C, Lead Length = 3/8"	1.0	W
	Derate above 50°C	6.67	mW/°C
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Temperature Range	-65 to +200	۵°

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

### Electrical Characteristics T<sub>a</sub> = 25°C unless otherwise noted

Device	V <sub>Z</sub> (V) @ I <sub>Z</sub> (Note 1)			Test Current	Max. Zener Impedance			Leakage Current		Non-Repetitive Peak Reverse	
	Device	Min.	Тур.	Max.	I <sub>Z</sub> (mA)	Zz@Iz (Ω)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ω)	I <sub>ZK</sub> (mA)	Ι <sub>R</sub> (μΑ)	V <sub>R</sub> (V)	Current I <sub>ZSM</sub> (mA) (Note 2)
1N4728A	3.135	3.3	3.465	76	10	400	1	100	1	1380	
1N4729A	3.42	3.6	3.78	69	10	400	1	100	1	1260	
1N4730A	3.705	3.9	4.095	64	9	400	1	50	1	1190	
1N4731A	4.085	4.3	4.515	58	9	400	1	10	1	1070	
1N4732A	4.465	4.7	4.935	53	8	500	1	10	1	970	
1N4733A	4.845	5.1	5.355	49	7	550	1	10	1	890	
1N4734A	5.32	5.6	5.88	45	5	600	1	10	2	810	
1N4735A	5.89	6.2	6.51	41	2	700	1	10	3	730	
1N4736A	6.46	6.8	7.14	37	3.5	700	1	10	4	660	
1N4737A	7.125	7.5	7.875	34	4	700	0.5	10	5	605	
1N4738A	7.79	8.2	8.61	31	4.5	700	0.5	10	6	550	
1N4739A	8.645	9.1	9.555	28	5	700	0.5	10	7	500	
1N4740A	9.5	10	10.5	25	7	700	0.25	10	7.6	454	
1N4741A	10.45	11	11.55	23	8	700	0.25	5	8.4	414	
1N4742A	11.4	12	12.6	21	9	700	0.25	5	9.1	380	

Publication Order Number: 1N4728A - 1N4758A/D

Device	V <sub>Z</sub> (V) @ I <sub>Z</sub> (Note 1)			Test Current	Max. Zener Impedance			Leakage Current		Non-Repetitive Peak Reverse
	Device	Min.	Тур.	Max.	I <sub>Z</sub> (mA)	Zz@Iz (Ω)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ω)	I <sub>ZK</sub> (mA)	Ι <sub>R</sub> (μ <b>Α</b> )	V <sub>R</sub> (V)
1N4743A	12.35	13	13.65	19	10	700	0.25	5	9.9	344
1N4744A	14.25	15	15.75	17	14	700	0.25	5	11.4	304
1N4745A	15.2	16	16.8	15.5	16	700	0.25	5	12.2	285
1N4746A	17.1	18	18.9	14	20	750	0.25	5	13.7	250
1N4747A	19	20	21	12.5	22	750	0.25	5	15.2	225
1N4748A 1N4749A	20.9 22.8	22 24	23.1 25.2	11.5 10.5	23 25	750 750	0.25 0.25	5 5	16.7 18.2	205 190
1N4750A	25.65	27	28.35	9.5	35	750	0.25	5	20.6	170
1N4751A	28.5	30	31.5	8.5	40	1000	0.25	5	22.8	150
1N4752A	31.35	33	34.65	7.5	45	1000	0.25	5	25.1	135
1N4753A	34.2	36	37.8	7	50	1000	0.25	5	27.4	125
1N4754A	37.05	39	40.95	6.5	60	1000	0.25	5	29.7	115
1N4755A	40.85	43	45.15	6	70	1500	0.25	5	32.7	110
1N4756A	44.65	47	49.35	5.5	80	1500	0.25	5	35.8	95
1N4757A	48.45	51	53.55	5	95	1500	0.25	5	38.8	90
1N4758A	53.2	56	58.8	4.5	110	2000	0.25	5	42.6	80

#### Notes:

1. Zener Voltage (V<sub>Z</sub>) The zener voltage is measured with the device junction in the thermal equilibrium at the lead temperature (T<sub>L</sub>) at 30°C  $\pm$  1°C and 3/8" lead length.

2. 2 Square wave Reverse Surge at 8.3 msec soak time.

### **Top Mark Information**

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

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# Top Mark Information (Continued) 1<sup>st</sup> line: F - ON Semiconductor Logo 2<sup>nd</sup> line: Device Name - 3<sup>rd</sup> to 4<sup>th</sup> characters of device name for 1Nxx series or 4<sup>th</sup> to 6<sup>th</sup> characters for BZXyy series 3<sup>rd</sup> line: Device Name - 5<sup>th</sup> to 6<sup>th</sup> characters of device name for 1Nxx series or Voltage rating for BZXyy series 4<sup>th</sup> line: Device Name - 7<sup>th</sup> to 8<sup>th</sup> characters of device name for 1Nxx series or Large Die identification only for BZXyy series 5<sup>th</sup> line: Date Code - Two Digit - Six Weeks Date Code **General Requirements:** 1.0 Cathode Band 2.0 First Line: (**ON**) - ON Semiconductor Logo 3.0 Second Line: Device name - For 1Nxx series: 3<sup>rd</sup> to 4<sup>th</sup> characters of the device name. For BZxx series: 4<sup>th</sup> to 6<sup>th</sup> characters of the device name. 4.0 Third Line: Device name - For 1Nxx series: 5<sup>th</sup> to 6<sup>th</sup> characters of the device name. For BZXyy series: Voltage rating 5.0 Third Line: Device name - For 1Nxx series: 7<sup>th</sup> to 8<sup>th</sup> 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 ON Semiconductor Test Spec). 8.0 Maximum no. of marking lines: 5 9.0 Maximum no. of digits per line: 3 10.0 ON Semiconductor 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 ON Semiconductor Logo) 12.0 First character of each marking line must be aligned vertically. 13.0 All device markings must be based on ON Semiconductor device specification.

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