

Zeners 1N4728A - 1N4764A

Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation @ $T_L \leq 50^\circ\text{C}$, Lead Length = 3/8"	1.0	W
	Derate above 50°C	6.67	mW/ $^\circ\text{C}$
T_J, T_{STG}	Operating and Storage Temperature Range	-65 to +200	$^\circ\text{C}$

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

Tolerance = 5%



Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Device	V_Z (V) @ I_Z (Note 1)	Test Current I_Z (mA)	Max. Zener Impedance			Leakage Current	
			Z_Z @ I_Z (Ω)	Z_{ZK} @ I_{ZK} (Ω)	I_{ZK} (mA)	I_R (mA)	V_R (V)
1N4728A	3.3	76	10	400	1	100	1
1N4729A	3.6	69	10	400	1	100	1
1N4730A	3.9	64	9	400	1	50	1
1N4731A	4.3	58	9	400	1	10	1
1N4732A	4.7	53	8	500	1	10	1
1N4733A	5.1	49	7	550	1	10	1
1N4734A	5.6	45	5	600	1	10	2
1N4735A	6.2	41	2	700	1	10	3
1N4736AT	6.8	37	3.5	700	1	10	4
1N4737AT	7.5	34	4	700	0.5	10	5
1N4738AT	8.2	31	4.5	700	0.5	10	6
1N4739AT	9.1	28	5	700	0.5	10	7
1N4740AT	10	25	7	700	0.25	10	7.6
1N4741AT	11	23	8	700	0.25	5	8.4
1N4742AT	12	21	9	700	0.25	5	9.1
1N4743AT	13	19	10	700	0.25	5	9.9
1N4744AT	15	17	14	700	0.25	5	11.4
1N4745AT	16	15.5	16	700	0.25	5	12.2
1N4746AT	18	14	20	750	0.25	5	13.7
1N4747AT	20	12.5	22	750	0.25	5	15.2
1N4748A	22	11.5	23	750	0.25	5	16.7
1N4749A	24	10.5	25	750	0.25	5	18.2
1N4750A	27	9.5	35	750	0.25	5	20.6
1N4751A	30	8.5	40	1000	0.25	5	22.8
1N4752A	33	7.5	45	1000	0.25	5	25.1
1N4753A	36	7	50	1000	0.25	5	27.4
1N4754A	39	6.5	60	1000	0.25	5	29.7
1N4755A	43	6	70	1500	0.25	5	32.7
1N4756A	47	5.5	80	1500	0.25	5	35.8
1N4757A	51	5	95	1500	0.25	5	38.8

Electrical Characteristics (Continued) $T_A=25^\circ\text{C}$ unless otherwise noted

Device	V_Z (V) @ I_Z (Note 1)	Test Current I_Z (mA)	Max. Zener Impedance			Leakage Current	
			Z_Z @ I_Z (Ω)	Z_{ZK} @ I_{ZK} (Ω)	I_{ZK} (mA)	I_R (mA)	V_R (V)
1N4758A	56	4.5	110	2000	0.25	5	42.6
1N4759A	62	4	125	2000	0.25	5	47.1
1N4760A	68	3.7	150	2000	0.25	5	51.7
1N4761A	75	3.3	175	2000	0.25	5	56
1N4762A	82	3	200	3000	0.25	5	62.2
1N4763A	91	2.8	250	3000	0.25	5	69.2
1N4764A	100	2.5	350	3000	0.25	5	76

V_F Forward Voltage = 1.2V Max @ $I_F = 200\text{mA}$

Notes: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 $30^\circ\text{C} \pm 1^\circ\text{C}$ and 3/8" lead length.

TRADEMARKS

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACEx™	FACT™	ImpliedDisconnect™	PACMAN™	SPM™
ActiveArray™	FACT Quiet Series™	ISOPLANAR™	POP™	Stealth™
Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET®	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic®
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	µC™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.