

Silicon Diode

1N4001

50V/1A

DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

1N4001 • 1N4007

1 A SILICON RECTIFIERS

- GLASS PACKAGE
- 1000 V RATING (1N4007)

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

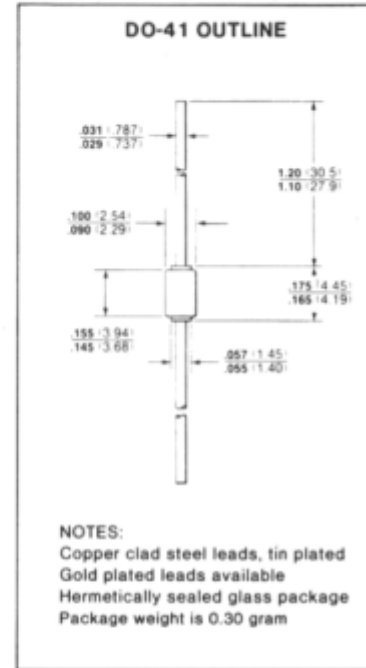
Storage Temperature Range	-65°C to +175°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Maximum Voltages and Currents

VRRM	Peak Repetitive Reverse Voltage	1N4001	50 V
VRWM	Working Peak Reverse Voltage	1N4002	100 V
VR	DC Blocking Voltage	1N4003	200 V
		1N4004	400 V
		1N4005	600 V
		1N4006	800 V
		1N4007	1000 V

		1N4001	35 V
		1N4002	70 V
		1N4003	140 V
VR(rms)	rms Reverse Voltage	1N4004	280 V
		1N4005	420 V
		1N4006	560 V
		1N4007	700 V

IO	Average Rectified Forward Current (Note 2)	1 A
IFSM	Peak Forward Surge Current	30 A



ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	TYP	MAX	UNITS	TEST CONDITIONS
V _F	Forward Voltage	0.95	1.10	V	I _O = 1.0 A, T _A = 75°C
V _{F(AV)}	Average Forward Voltage	0.75	0.80	V	I _F = 1 A
V _{FM}	Peak Forward Voltage	1.40	1.60	V	I _O = 1.0 A
I _R	Reverse Current	0.05	10.0	μA	Rated dc Voltage
		0.5	50	μA	Rated dc Voltage, T _A = 100°C
I _{R(AV)}	Average Reverse Current	1.0	30	μA	Rated V _R , I _O = 1.0 A
t _{rr}	Reverse Recovery Time (Note 3)	1.0		μs	I _F = 1.0 A, V _r = 30 V

NOTES:

- These are limiting values above which the serviceability of the rectifier may be impaired.
- Derate Linearly above T_A = 75°C (Note 3).
- For product family characteristic curves and test circuit, refer to Chapter 4, D16.

