

1N4001 thru 1N4007

General Purpose Plastic Rectifiers Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

Features

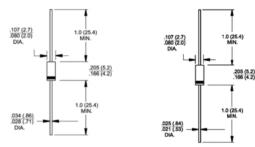
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- High forward surge capability
- ♦ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length,
- 5 lbs. (2.3kg) tension
- ◆ T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue



DO-204AL (DO-41)

Mechanical Data

- ◆ Case: JEDEC DO-204AL (DO-41)/A-405, molded plastic box
- ◆ Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- Mounting Position: Any
- ◆ Weight: DO-41 0.012 ounce, 0.33 gram A-405 - 0.008 ounce, 0.23 gram



Note: Lead diameter is 0.025(0.64)/0.021(0.53) for suffix "S" part numbers

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =50°C	I _{F(AV)}	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T _A =50°C	I _{FSM}	30.0							Amps
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at T _L =75°C	I _{R(AV)}	30							uA
Maximum instantaneous forward voltage at 1.0A	V _F	1.1							Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	5.0 50							uA
Typical reverse recovery time at I _{FM} =20mA, I _{RM} =1mA (Note 2)	t,,	1.0							uS
Typical junction capacitance at 4.0V, 1MHz	C _J	15							pF
Typical thermal resistance (Note 1)	R _{eJA} R _{eJL}	50.0 25.0							°C/W
Operating junction temperature range	T _J	-55 to +125							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Notes: 1. Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

2. Measured on Tektronix type "S" recovery plug-in. Tektronix 545 scope or equivalent

RATINGS AND CHARACTERISTIC CURVES

(T, = 25°C unless otherwise noted)

