

I. General Purpose Rectifier

1.0A Silicon Rectifier 1N4001~1N4007

(Package: DO-41)

<p>FEATURES</p> <ul style="list-style-type: none"> • The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 • Construction utilizes void-free molded plastic technique • Low reverse leakage • High forward surge current capability • High temperature soldering guaranteed : 250 /10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : JEDEC DO-41 molded plastic body • Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 0.26 grams 	<p>Case: DO-41 Dimensions in inches and (millimeters)</p>
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Ratings & Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	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 $T_a=75$	I_O	1.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	1.1							Volts
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 100$	I_R	5.0 50.0							μA
Typical junction capacitance (Note 1)	C_j	15.0							PF
Typical thermal resistance (Note 2)	R_{th-JA}	50.0							/ W
Operating junction and storage temperature range	T_j, T_{stg}	-65 to +175							

Note :

1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.

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

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Ratings and Characteristic Curves of 1N4001~1N4007

