



95 E. Jeffryn Boulevard  
Deer Park, NY 11729  
Tel (631) 595-1818  
Fax (631) 595-1283

# 1N4001G thru 1N4007G

Glass Passivated Junction Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

## Features

- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Cavity-free glass passivated junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ 1.0 Ampere operation at  $T_A=75^\circ\text{C}$  with no thermal runaway
- ◆ Typical  $I_p$  less than 0.1uA
- ◆ High temperature soldering guaranteed:  
350°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

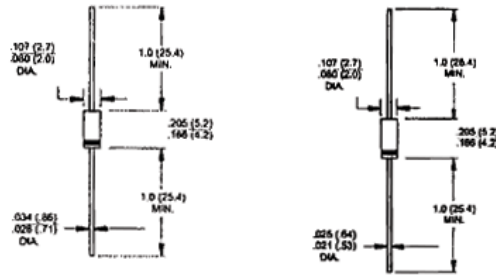


DO-204AL (DO-41)

A-405

## Mechanical Data

- ◆ Case: JEDEC DO-204AL (DO-41) / A-405, molded plastic over glass body
- ◆ 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, 0.335 gram  
A-405 - 0.008 ounce, 0.235 gram



Note: Lead diameter is 0.025(0.64)/0.021(0.53) for part numbers from 1N4001SG thru 1N4007SG

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	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 $T_A=75^\circ\text{C}$	$I_{FAV}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0							Amps
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length $T_A=75^\circ\text{C}$	$I_{R(AV)}$	30							uA
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	$I_R$	5.0 50							uA
Typical reverse recovery time at $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_F=0.25\text{A}$	$t_r$	1.0							uS
Typical junction capacitance at 4.0V, 1MHz	$C_j$	8.0							pF
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$ $R_{\theta JC}$	55.0 25.0							°C/W
Operating junction temperature range	$T_J$	-55 to +150							°C
Storage temperature range	$T_{STG}$	-55 to +150							°C

Notes: 1. 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

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

