



# 1N5400 THRU 1N5408

## GENERAL PURPOSE PLASTIC RECTIFIER

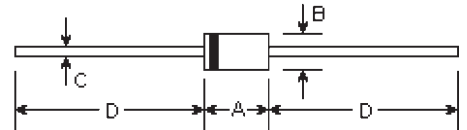
Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge current capability
- Construction utilizes void-free molded plastic technique
- 3.0 ampere operation at  $T_L=105^\circ\text{C}$  with no thermal runaway
- Typical  $I_R$  less than  $0.1 \mu\text{A}$
- High temperature soldering guaranteed:  $250^\circ\text{C}/10$  seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension

### DO-201AD



### Mechanical Data

- **Case:** DO-201AD molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.042 ounce, 1.19 grams

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.283	0.374	7.20	9.50	
B	0.189	0.208	4.80	5.30	ϕ
C	0.048	0.051	1.20	1.30	ϕ
D	1.000	-	25.40	-	

### Maximum Ratings and Electrical Characteristics

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

	Symbols	1N 5400	1N 5401	1N 5402	1N 5403	1N 5404	1N 5405	1N 5406	1N 5407	1N 5408	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	Volts
Maximum DC blocking voltage to $T_A=150^\circ\text{C}$	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum average forward rectified current 0.5" (12.5mm) lead length at $T_L=105^\circ\text{C}$	$I_{(AV)}$	3.0									Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at $T_L=105^\circ\text{C}$	$I_{FSM}$	200.0									Amps
Maximum instantaneous forward voltage at 3.0A	$V_F$	0.95									Volts
Maximum DC reverse current at rated DC blocking voltage $T_L=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	$I_R$	10.0 300.0									$\mu\text{A}$
Typical junction capacitance (Note 1)	$C_J$	30.0									$\rho\text{F}$
Typical thermal resistance (Note 2)	$R_{\theta JA}$	20.0									$^\circ\text{C}/\text{W}$
Maximum DC blocking voltage temperature	$T_A$	+150									$^\circ\text{C}$
Operating junction temperature range	$T_J$	-50 to +170									$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-50 to +170									$^\circ\text{C}$

Notes:

(1) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

(2) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted with 0.8X0.8" (20X20mm) copper heat sinks

# RATINGS AND CHARACTERISTIC CURVES

