



1N5400 THRU 1N5408

GENERAL PURPOSE PLASTIC RECTIFIER

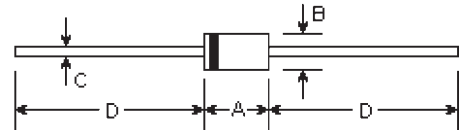
Reverse Voltage - 50 to 1000 Volts

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°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°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 $T_A=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	I_R	10.0 300.0									μA
Typical junction capacitance (Note 1)	C_J	30.0									ρF
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

