

# 1N5400 THRU 1N5408

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

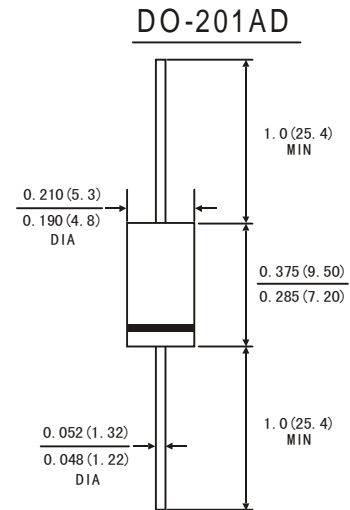
Forward Current -3.0Amperes

### FEATURES

- The plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- High surge current capability
- 3.0A operation at  $T_L=75^{\circ}\text{C}$  with no thermal runaway
- Typical  $I_r$  less than  $0.1\ \mu\text{A}$
- High temperature soldering guaranteed:  $250^{\circ}\text{C}/10$  seconds, $0.375$ "( $9.5\text{mm}$ ) lead length, $5\text{lbs.}$ ( $2.3\text{kg}$ ) tension

### MECHANICAL DATA

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



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at  $25^{\circ}\text{C}$  ambient temperature unless otherwise specified ,Single phase ,half wave 60Hz,,resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	Units
Maximum Recurrent 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 $T_A=105^{\circ}\text{C}$	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum average Forward Rectified Current $0.5$ "( $12.5\text{mm}$ )lead length at $T_L=105^{\circ}\text{C}$	$I_{(AV)}$	3.0									Amps
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200.0									Amps
Maximum Instantaneous Forward Voltage at 3.0 A	$V_F$	1.1									Volts
Maximum Reverse current at rated DC Blocking Voltage	$I_R$	$T_A = 25^{\circ}\text{C}$									$\mu\text{A}$
		$T_A = 150^{\circ}\text{C}$									
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20.0									$^{\circ}\text{C}/\text{W}$
Typical Junction Capacitance (Note 1)	$C_J$	35.0									pF
Maximum DC Blocking Voltage temperature	$T_A$	+150.0									$^{\circ}\text{C}$
Operating and Storage temperature Range	$T_J$	-50 to +175									$^{\circ}\text{C}$
	$T_{STG}$										

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient and from junction to lead at  $0.375$ "( $9.5\text{mm}$ )lead length , P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES 1N5400 THRU 1N5408

FIG. 1-FORWARD CURRENT DERATING CURVE

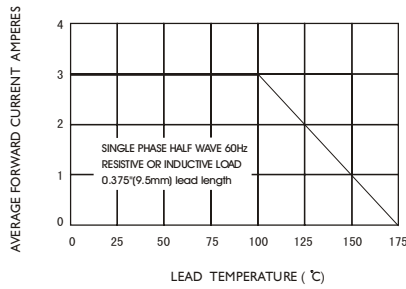


FIG. 2-TYPICAL INSTANTANEOUS FORWARD VOLTAGE (V)

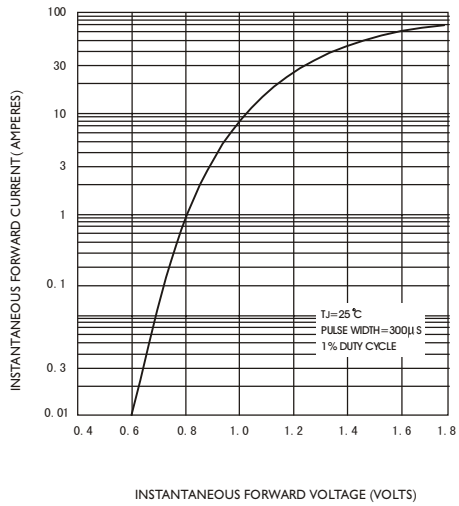


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

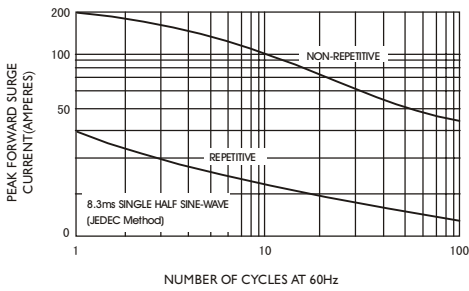


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

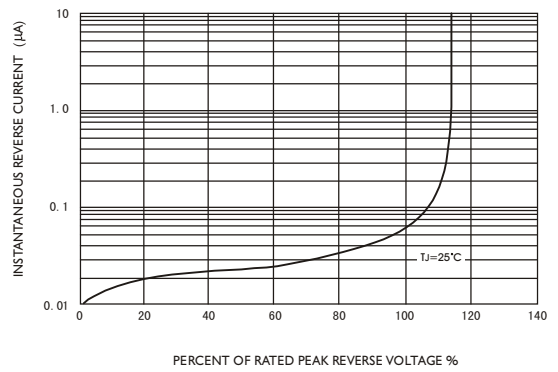


FIG. 5-TYPICAL JUNCTION CAPACITANCE

