

1N5400G THRU 1N5408G

# GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

## VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Amperes

### **FEATURES**

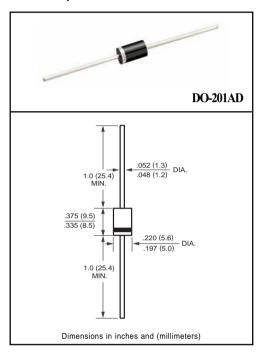
- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* Glass passivated junction

#### **MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 1.18 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



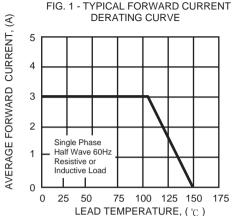
#### MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	1N5400G	1N5401G	1N5402G	1N5404G	1N5406G	1N5407G	1N5408G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at TL = 105°C	lo	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150						Amps	
Typical Junction Capacitance (Note)	Cı	40						pF	
Typical Thermal Resistance	RθJA	30						°C/W	
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150							٥C

#### ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	1N5400G 1N54	01G 1N5402G	1N5404G	1N5406G	1N5407G	1N5408G	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC		VF	1.1						Volts
Maximum DC Reverse Current	@Ta = 25°C		5.0						
at Rated DC Blocking Voltage	@Ta = 100°C	la la	300						uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 75°C		lR	30						

# RATING AND CHARACTERISTIC CURVES (1N5400G THRU 1N5408G)



LEAD TEMPERATURE, ( °C ) FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD PEAK FORWARD SURGE CURRENT, (A) SURGE CURRENT 250 8.3ms Single Half Sine-Wave 200 (JEDED Method) 150 100

50

1 2 4

6 8 1 0

NUMBER OF CYCLES AT 60Hz

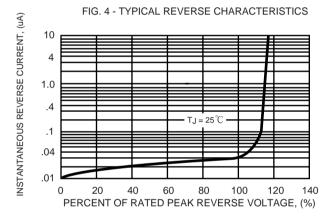
20

40 6080100

.1 .2 .4

CHARACTERISTICS 20 INSTANTANEOUS FORWARD CURRENT, (A) 10 4 2 1.0 .4 TJ = 25 ℃ .2 Pulse Width=300us .1 1% Duty Cycle .04 .02 .01 .6 .8 1.2 1.5 1.0 1.4 INSTANTANEOUS FORWARD VOLTAGE, (V)

FIG. 2 - TYPICAL INSTANTANEOUS FORWARD



JUNCTION CAPACITANCE, (pF) 200 100 60 40 20 10 6 4 2 1

1.0 2

REVERSE VOLTAGE, (V)

FIG. 5 - TYPICAL JUNCTION CAPACITANCE

10 20 40