

# 1N5400 THRU 1N5408

## GENERAL PURPOSE PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V      CURRENT:3.0A

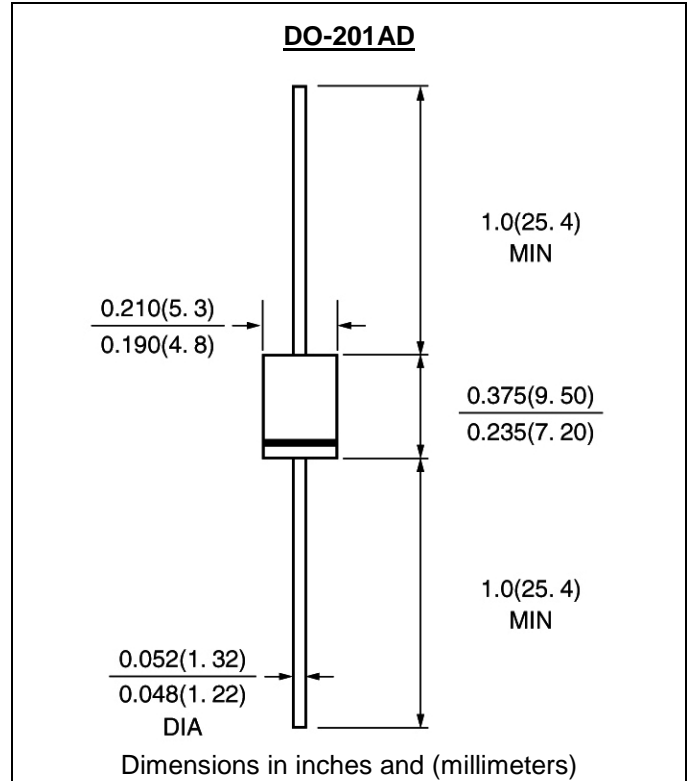


### FEATURE

Molded case feature for auto insertion  
High current capability  
Low leakage current  
High surge capability  
High temperature soldering guaranteed  
250°C/10sec/0.375"lead length at 5 lbs tension

### MECHANICAL DATA

Terminal:Plated axial leads solderable per  
MIL-STD 202E, method 208C  
Case:Molded with UL-94 Class V-0 recognized Flame  
Retardant Epoxy  
Polarity:color band denotes cathode  
Mounting position:any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated,  
for capacitive load, derate current by 20%)

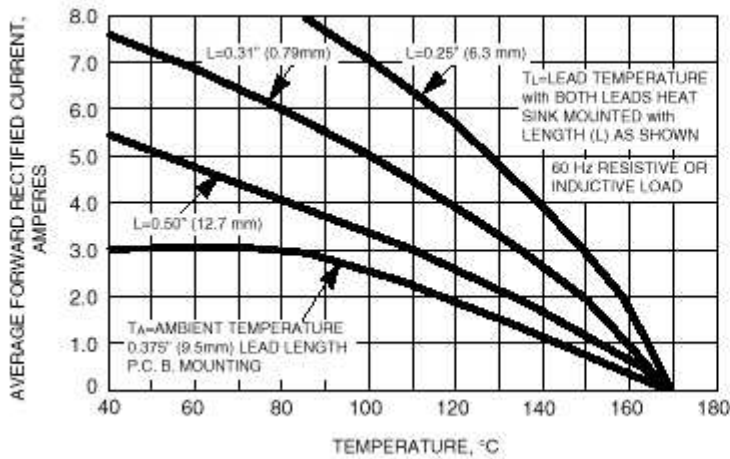
	SYMBOL	1N 5400	1N 5401	1N 5402	1N 5403	1N 5404	1N 5405	1N 5406	1N 5407	1N 5408	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking Voltage	V <sub>dc</sub>	50	100	200	300	400	500	600	800	1000	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =80°C	I <sub>f(av)</sub>	3.0									A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I <sub>fsm</sub>	200.0									A
Maximum Instantaneous Forward Voltage at rated forward current	V <sub>f</sub>	1.1									V
Maximum full load reverse current full cycle at T <sub>L</sub> =75°C	I <sub>r(av)</sub>	30.0									μA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	I <sub>r</sub>	5.0 500.0									μA μA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	30.0									pF
Typical Thermal Resistance (Note 2)	R(ja)	20.0									°C/W
Storage and Operation Junction Temperature	T <sub>stg</sub>	-50 to +150									°C

**Note:**

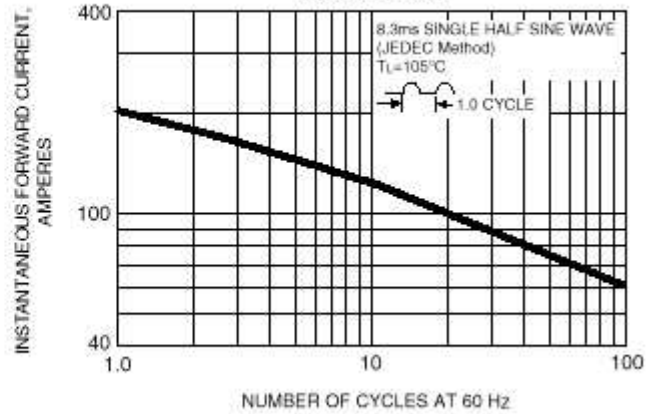
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375"lead length, P.C. Board Mounted

# RATINGS AND CHARACTERISTIC CURVES 1N5400 THRU 1N5408

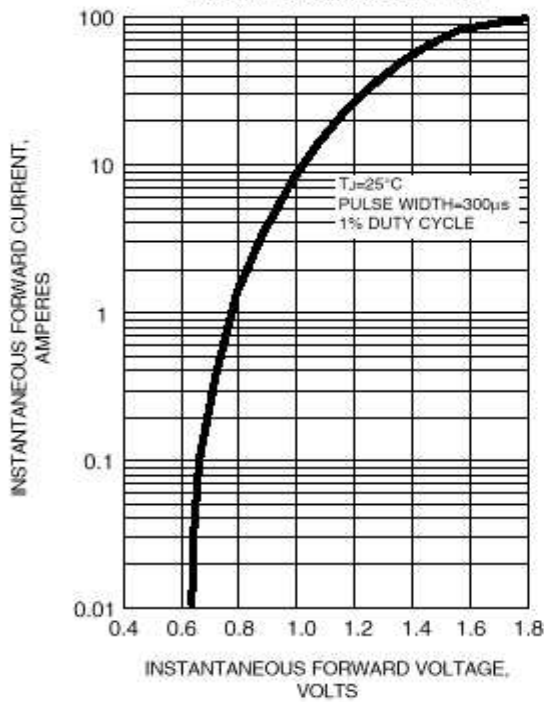
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



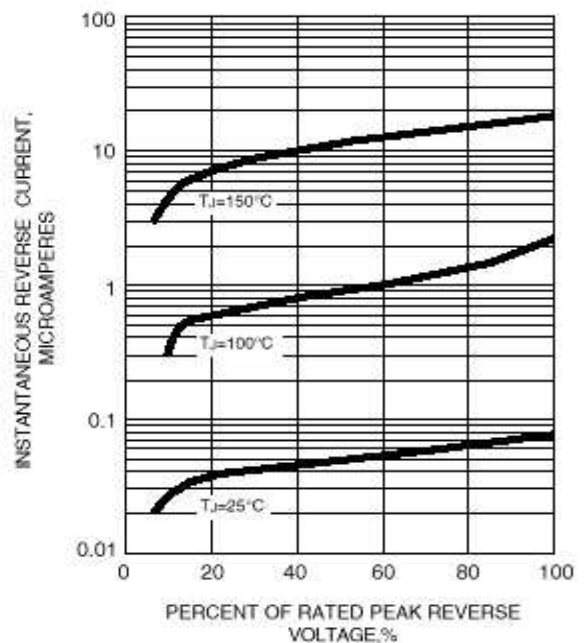
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



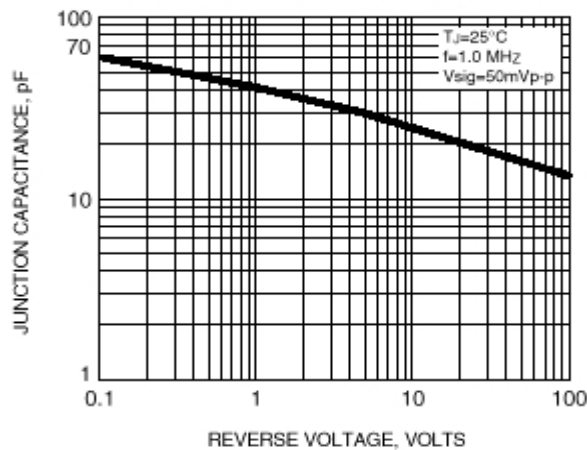
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

