



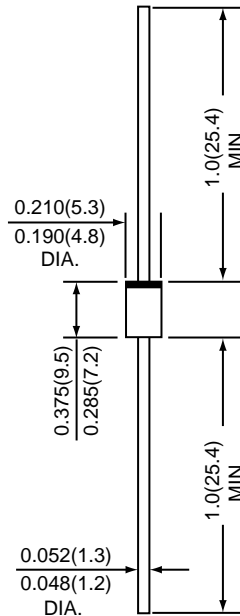
# 1N5400 THRU 1N5408

## SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

**DO-201AD**



\*Dimensions in inches and (millimeters)



### FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* High surge current capability
- \* Construction utilizes void-free molded plastic technique
- \* 3.0A operation at  $T_L=105^{\circ}\text{C}$  with no thermal runaway
- \* Typical  $I_R$  less than 0.1uA
- \* High temperature soldering guaranteed :  
260°C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case :** JEDEC 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 :** 0.04 ounce, 1.12 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>									
	SYMBOLS	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	UNITS
Maximum repetitive 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 0.375" (9.5mm) 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 (JEDEC Method)	$I_{FSM}$	200							Amps
Maximum instantaneous forward voltage at 3.0 A	$V_F$	1.1							Volts
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_L=75^{\circ}\text{C}$	$I_{R(AV)}$	30							uA
Maximum DC reverse current at rated DC blocking voltage	$I_R$	5 50							uA
Typical junction capacitance 4.0V, 1MHz	$C_J$	40							pF
Typical thermal resistance	$R_{\theta JA}$	30							$^{\circ}\text{C} / \text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175							$^{\circ}\text{C}$

# RATINGS AND CHARACTERISTIC CURVES 1N5400 THRU 1N5408

FIG.1 - FORWARD CURRENT DERATING CURVE

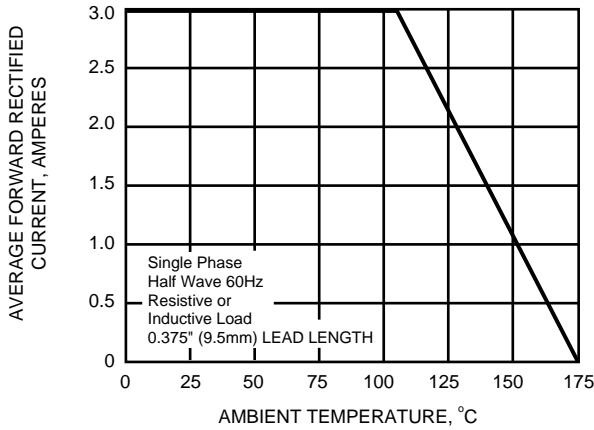


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

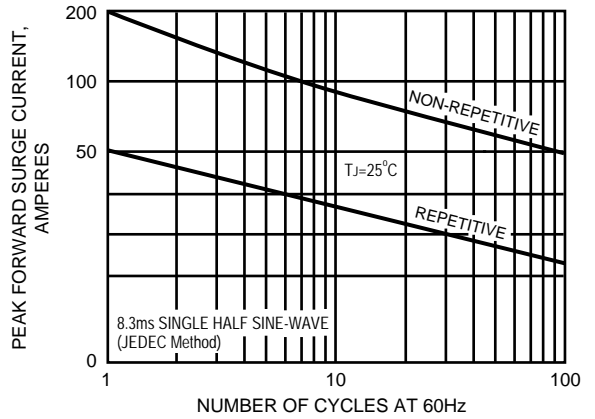


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

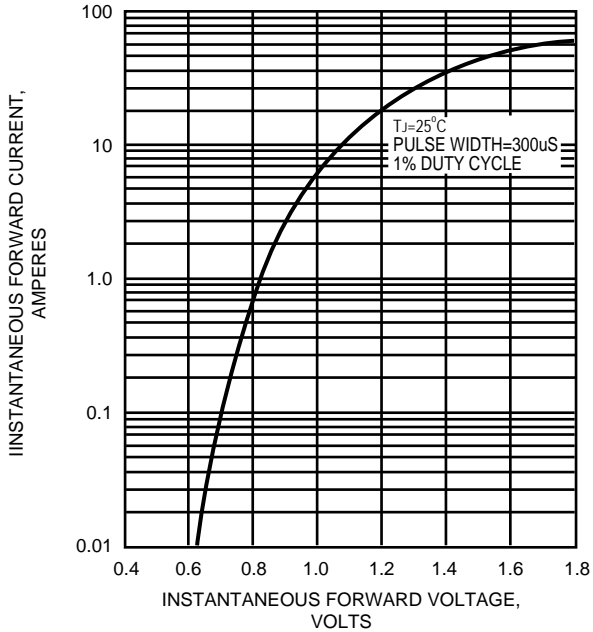


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

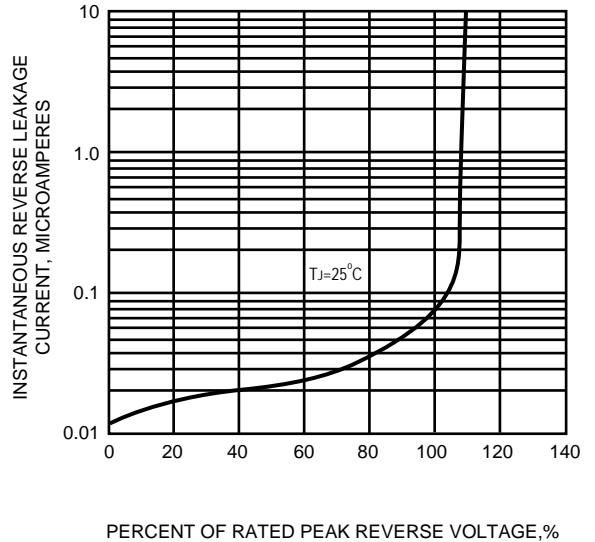


FIG.5 - TYPICAL JUNCTION CAPACITANCE

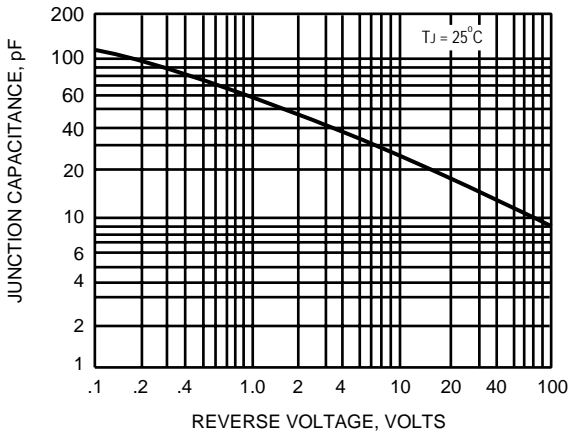


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

