



# SILICON RECTIFIER

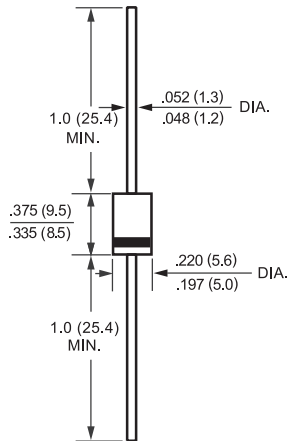
**VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 3.0 Amperes**

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.18 grams

## FEATURES

- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability



DO-27



Dimensions in inches and (millimeters)

## 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%.

PARAMETER	SYMBOL	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at $T_L = 105^\circ C$	$I_o$	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							Amps
Maximum Instantaneous Forward Voltage at 3.0A DC	$V_F$	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ C$	5.0							uAmps
	@ $T_A = 100^\circ C$	500							
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at $T_L = 75^\circ C$	$I_R$	30							uAmps
Typical Junction Capacitance ( Note )	$C_J$	40							pF
Typical Thermal Resistance	$R_{\theta JA}$	30							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175							$^\circ C$

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts



## RATING AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

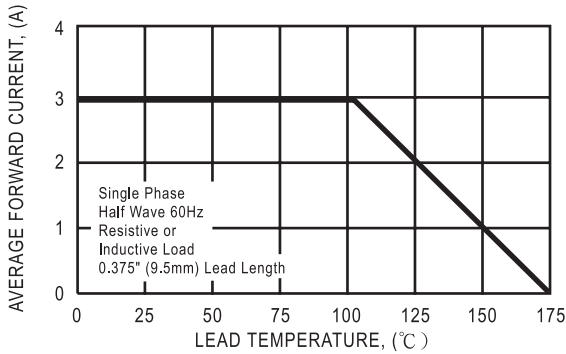


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

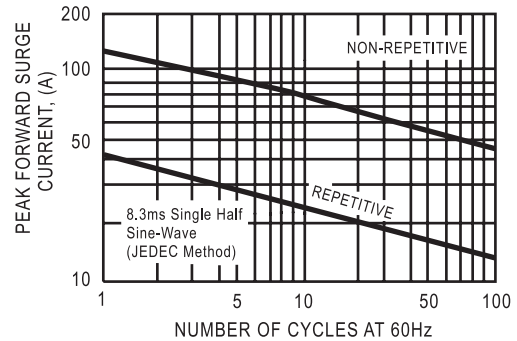


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE, (V)

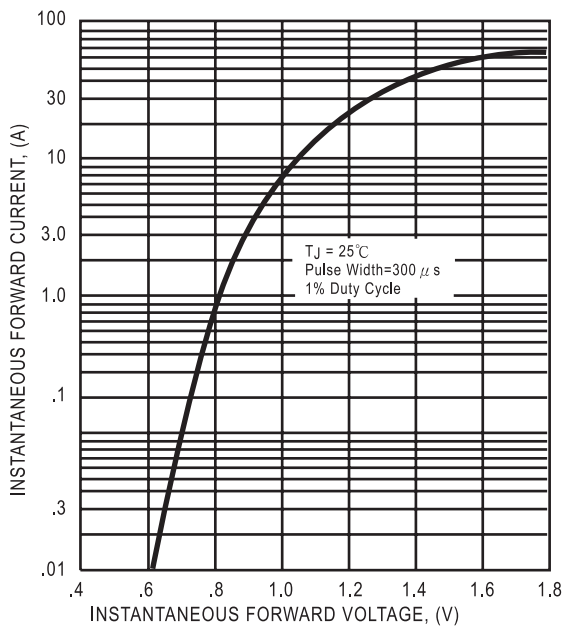


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

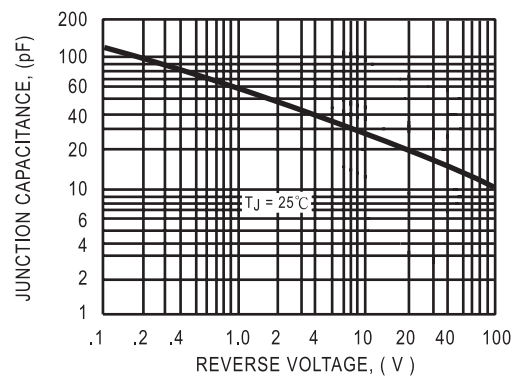


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

