



## GENERAL PURPOSE SILICON RECTIFIER

**1N5400 THRU 1N5408**

**VOLTAGE RANGE  
CURRENT**

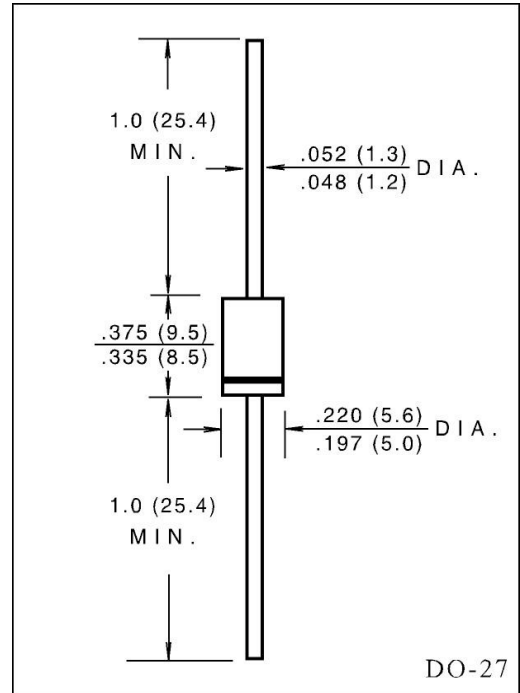
**50 to 1000 Volts  
3.0 Ampere**

### FEATURES

- Low cost construction.
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability.
- High temperature soldering guaranteed:  
260 /10 seconds, 0.375" (9.5mm) lead length  
at 5 lbs (2.3kg) tension.

### MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denotes cathode end.
- Lead: Plated axial lead, solderable per MIL - STD - 202E  
method 208C
- Mounting position: Any
- Weight: 0.042 ounce, 1.19grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600			Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420			Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	600	600			Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length at $T_L = 105$	$I_{(AV)}$								Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method )	$I_{FSM}$								Amps
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$								Volts
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$								A
	$T_A = 25$								
	$T_A$								
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L = 105$	$I_{R(AV)}$				500				A
Typical Junction Capacitance (Note 1)	$C_J$				40				pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$				30				/W
Operating and Storage Temperature Range	$T_J$				(-65 to +175)				
Storage Temperature Range	$T_{STG}$				(-65 to +175)				

### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted with 0.8" X 0.8" (20 X 20mm) copper heatsink.

# RATINGS AND CHARACTERISTIC CURVES IN5400 THRU IN5408

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

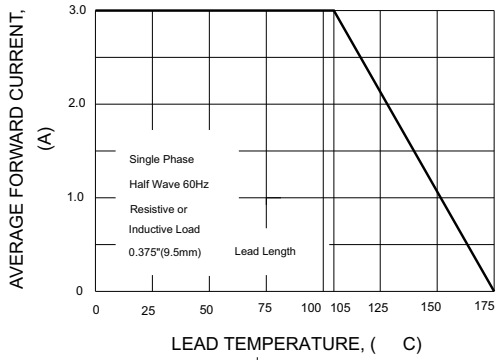


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

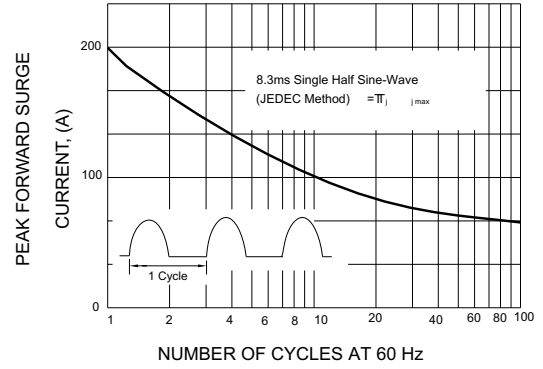


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

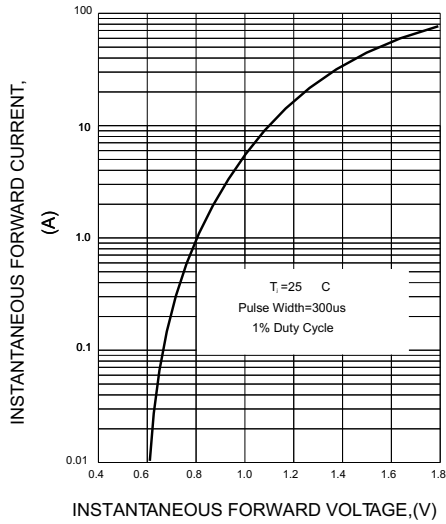


FIG.4-TYPICAL REVERSE CHARACTERISTICS

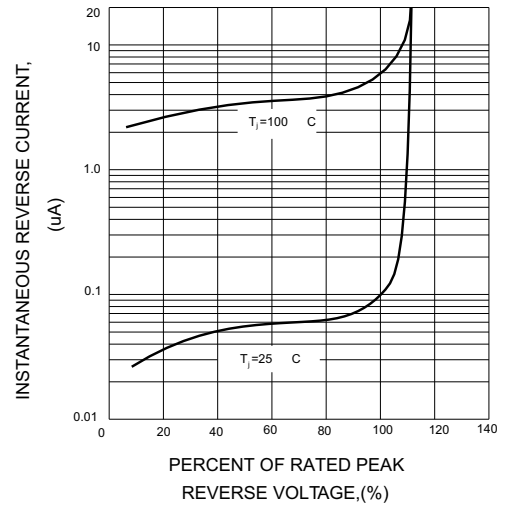


FIG.5-TYPICAL JUNCTION CAPACITANCE

