

# 1N5400 - 1N5408

### **Features**

- 3.0 ampere operation at T<sub>A</sub> = 75°C with no thermal runaway.
- High current capability.
- · Low leakage.



# **General Purpose Rectifiers**

## Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value				Units					
		5400	5401	5402	5403	5404	5405	5406	5407	5408	
$V_{RRM}$	Maximum Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, .375 " lead length @ T <sub>A</sub> = 75°C	3.0					А				
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	200				А					
T <sub>stg</sub>	Storage Temperature Range	-55 to +150			°C						
TJ	Operating Junction Temperature	-55 to +150				°C					

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### **Thermal Characteristics**

Symbol	Parameter	Value	Units
$P_{D}$	Power Dissipation	6.25	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	°C/W

# **Electrical Characteristics** $T_A = 25$ °C unless otherwise noted

Symbol	Parameter		Device								Units
			5401	5402	5403	5404	5405	5406	5407	5408	
$V_{F}$	Forward Voltage @ 3.0 A	1.2			V						
Irr	Maximum Full Load Reverse Current, Full Cycle T <sub>A</sub> = 105°C	0.5					mA				
I <sub>R</sub>	Reverse Current @ rated $V_R$ $T_A = 25$ °C $T_A = 100$ °C	5.0 500			μA μA						
$C_T$	Toatal Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	30				pF					

## **General Purpose Rectifiers**

(continued)

## **Typical Characteristics**

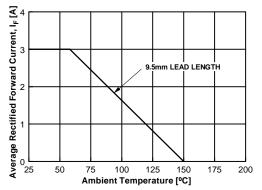


Figure 1. Forward Current Derating Curve

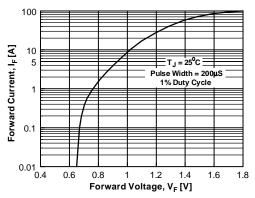


Figure 2. Forward Voltage Characteristics

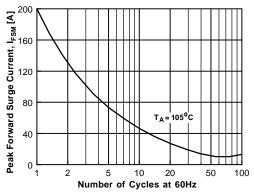


Figure 3. Non-Repetitive Surge Current

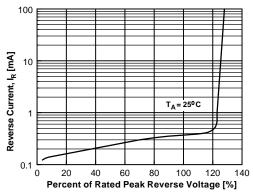


Figure 4. Reverse Current vs Reverse Voltage

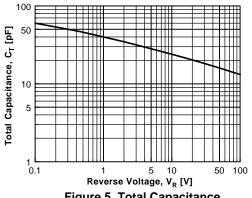


Figure 5. Total Capacitance

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