

1N5400 - 1N5408

Features

- 3.0 ampere operation at $T_A = 75^\circ\text{C}$ with no thermal runaway.
- High current capability.
- Low leakage.



DO-201AD

COLOR BAND DENOTES CATHODE

General Purpose Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ 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 _{F(AV)}	Average Rectified Forward Current, .375 " lead length @ T _A = 75°C	3.0									A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	200									A
T _{stg}	Storage Temperature Range	-55 to +150									°C
T _J	Operating Junction Temperature	-55 to +150									°C

*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 _{JA}	Thermal Resistance, Junction to Ambient	20	°C/W

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Device									Units
		5400	5401	5402	5403	5404	5405	5406	5407	5408	
V _F	Forward Voltage @ 3.0 A	1.2									V
I _{rr}	Maximum Full Load Reverse Current, Full Cycle T _A = 105°C	0.5									mA
I _R	Reverse Current @ rated V _R T _A = 25°C T _A = 100°C	5.0 500									uA uA
C _T	Toatal Capacitance V _p = 4.0 V, f = 1.0 MHz	30									pF

Typical Characteristics

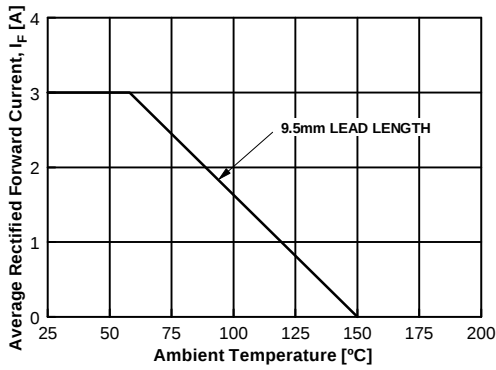


Figure 1. Forward Current Derating Curve

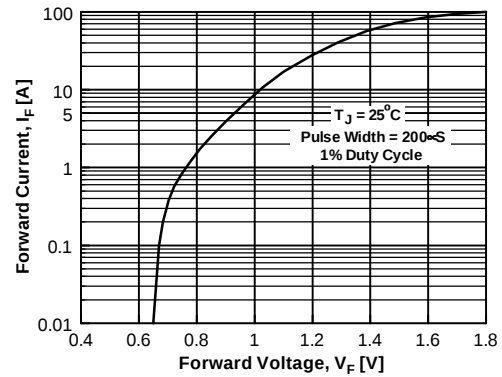


Figure 2. Forward Voltage Characteristics

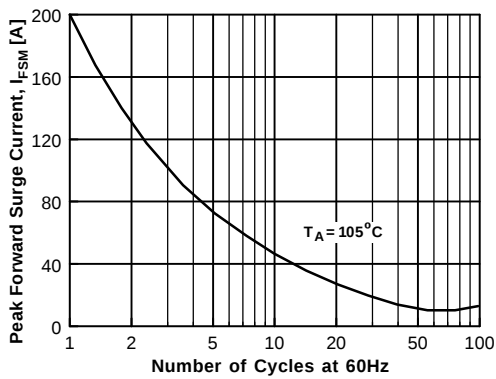


Figure 3. Non-Repetitive Surge Current

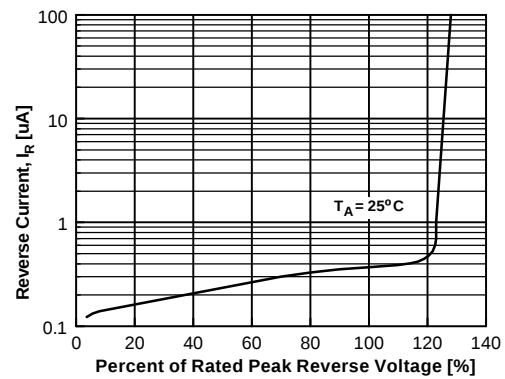


Figure 4. Reverse Current vs Reverse Voltage

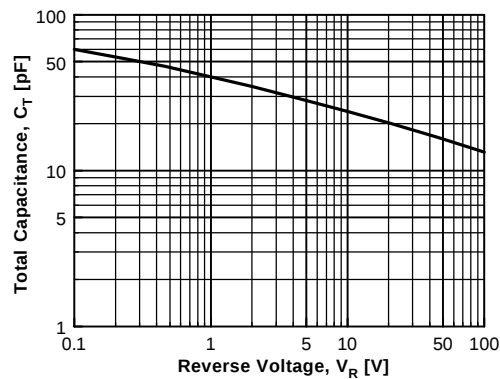


Figure 5. Total Capacitance