



1N5400 - 1N5408

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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
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	$^\circ\text{C/W}$

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										μA μA
C _T	Toatal Capacitance V _p = 4.0 V, f = 1.0 MHz	30										pF

Typical Characteristics

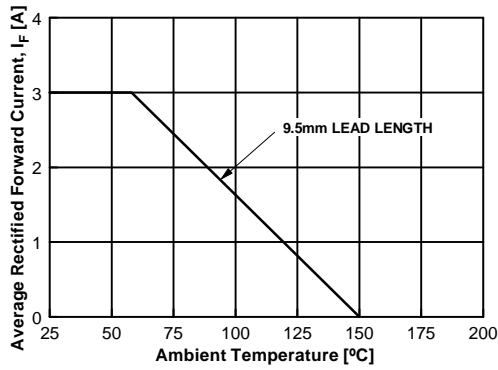


Figure 1. Forward Current Derating Curve

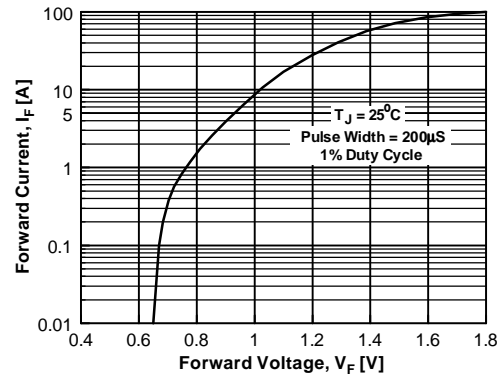


Figure 2. Forward Voltage Characteristics

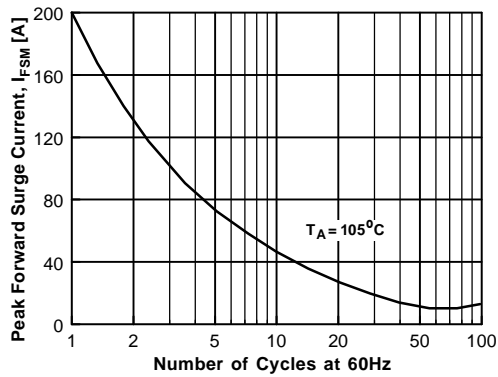


Figure 3. Non-Repetitive Surge Current

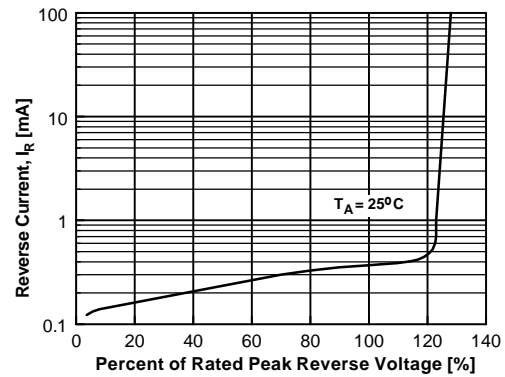


Figure 4. Reverse Current vs Reverse Voltage

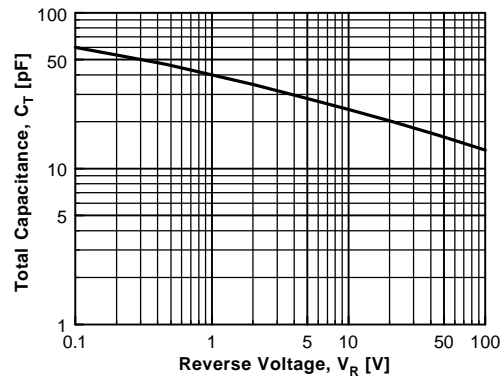


Figure 5. Total Capacitance

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