

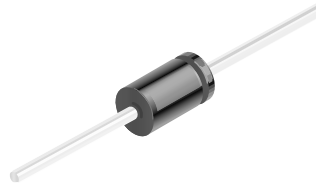


# 1N5400 - 1N5408

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 @ $T_A = 75^\circ\text{C}$	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										$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150										$^\circ\text{C}$

\*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	$^\circ\text{C}/\text{W}$

### 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 $T_A = 105^\circ\text{C}$	0.5										mA
$I_R$	Reverse Current @ rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500										$\mu\text{A}$ $\mu\text{A}$
$C_T$	Total Capacitance $V_R = 4.0\text{ V}$ , $f = 1.0\text{ MHz}$	30										pF

Typical Characteristics

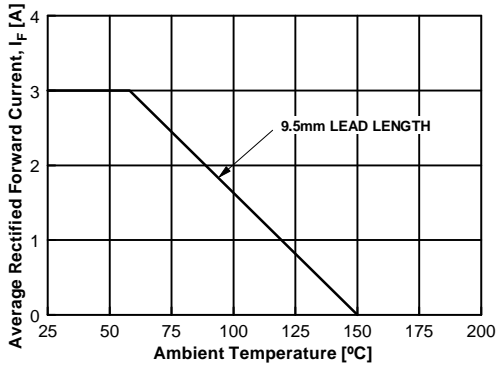


Figure 1. Forward Current Derating Curve

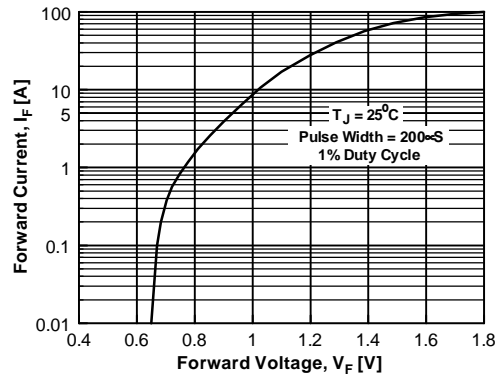


Figure 2. Forward Voltage Characteristics

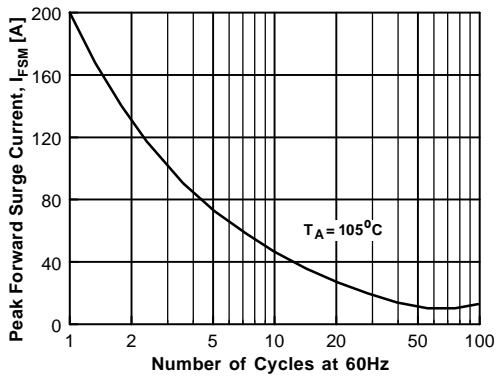


Figure 3. Non-Repetitive Surge Current

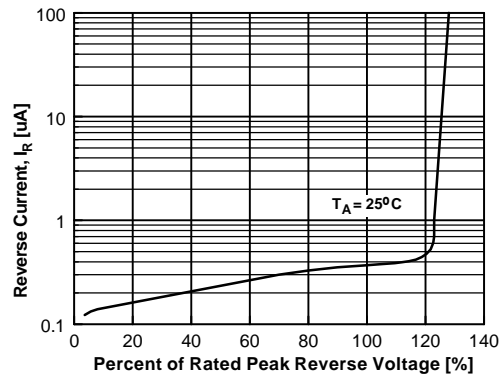


Figure 4. Reverse Current vs Reverse Voltage

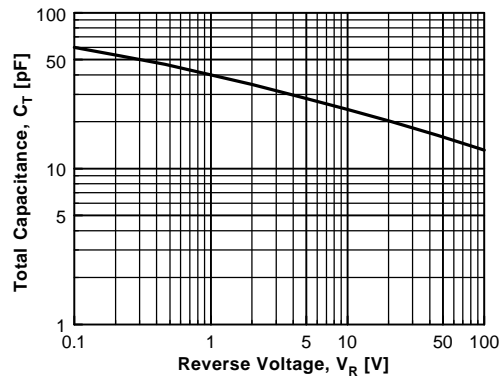


Figure 5. Total Capacitance

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EcoSPARK™	I <sup>2</sup> C™	MSXPro™	RapidConfigure™	TINYOPTO™
E <sup>2</sup> C MOS™	i-Lo™	OCX™	RapidConnect™	TruTranslation™
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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