

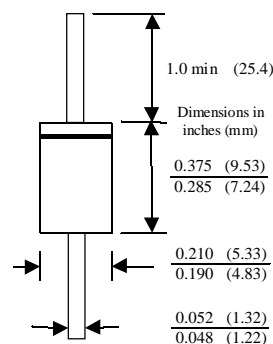
# 1N5400 - 1N5408

## 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



## 3.0 Ampere General Purpose Rectifiers

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$I_O$	Average Rectified Current .375" lead length @ $T_A = 75^\circ\text{C}$	3.0	A
$i_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	200	A
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	6.25 50	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	$^\circ\text{C}/\text{W}$
$T_{\text{stg}}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

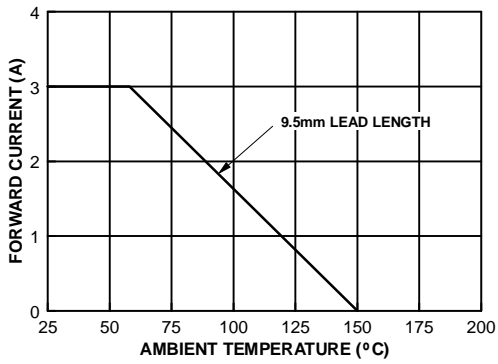
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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

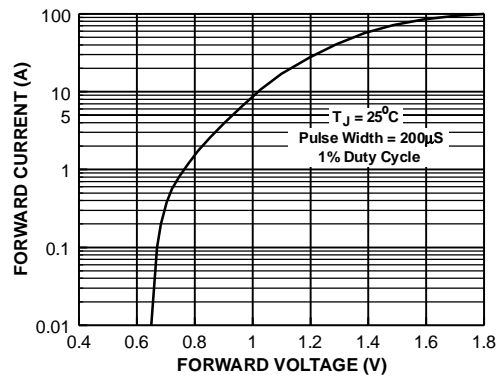
Parameter	Device									Units
	5400	5401	5402	5403	5404	5405	5406	5407	5408	
Peak Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	35	70	140	210	280	350	420	560	700	V
DC Reverse Voltage (Rated $V_R$ )	50	100	200	300	400	500	600	800	1000	V
Maximum Reverse Current @ rated $V_R$ $T_A = 25^\circ\text{C}$	5.0									$\mu\text{A}$
$T_A = 100^\circ\text{C}$	500									$\mu\text{A}$
Maximum Forward Voltage @ 3.0 A	1.2									V
Maximum Full Load Reverse Current, Full Cycle $T_A = 105^\circ\text{C}$	0.5									mA
Typical Junction Capacitance $V_R = 4.0\text{ V}$ , $f = 1.0\text{ MHz}$	30									pF

Typical Characteristics

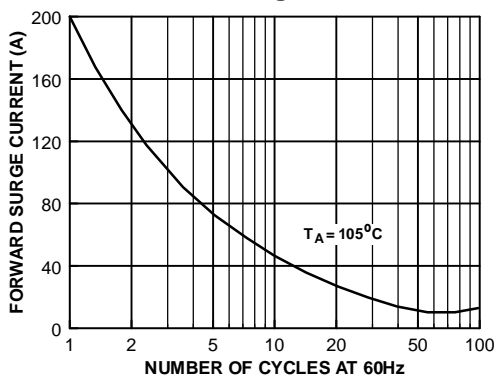
Forward Current Derating Curve



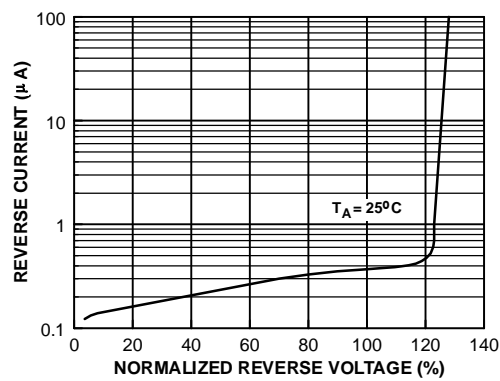
Forward Characteristics



Overload Surge Current



Reverse Characteristics



Junction Capacitance

