

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
$I_{F(AV)}$	Average Rectified 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 Superimposed on rated load (JEDEC method)	200	A
P_D	Total Device Dissipation Derate above 25°C	6.25 50	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	20	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

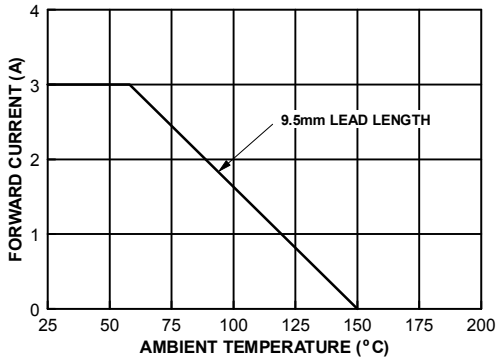
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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

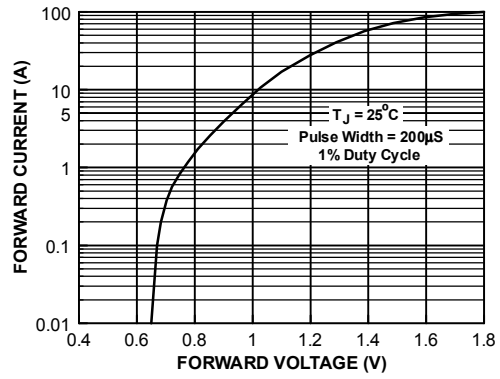
Symbol	Parameter	Device										Units
		5400	5401	5402	5403	5404	5405	5406	5407	5408		
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	210	280	350	420	560	700	V	
V_R	DC Reverse Voltage (Rated V_R)	50	100	200	300	400	500	600	800	1000	V	
I_{RM}	Maximum Instantaneous Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500										μA μA
V_{FM}	Maximum Instantaneous 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
C	Typical Junction Capacitance $V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$	30										pF

Typical Characteristics

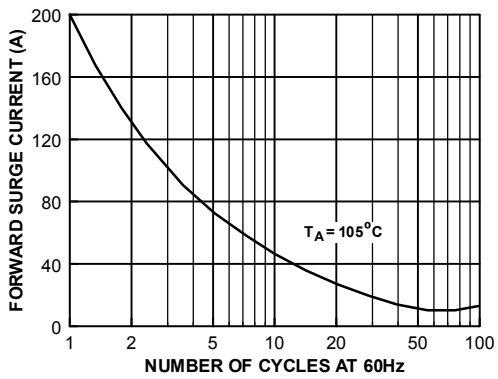
Forward Current Derating Curve



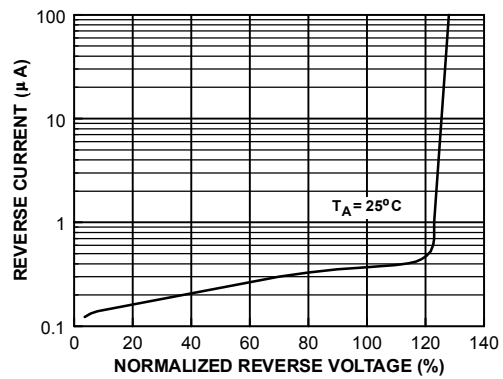
Forward Characteristics



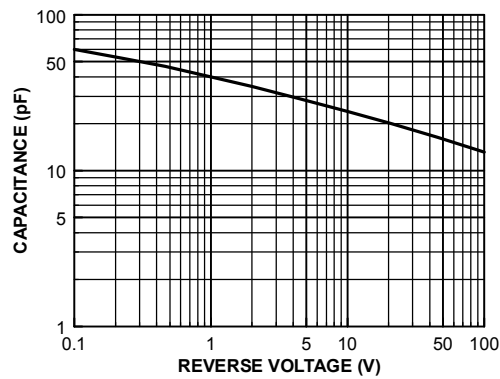
Overload Surge Current



Reverse Characteristics



Junction Capacitance



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EnSigna™	OPTOLOGIC™	SMART START™	
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