

1N5400 - 1N5408

Power Diode

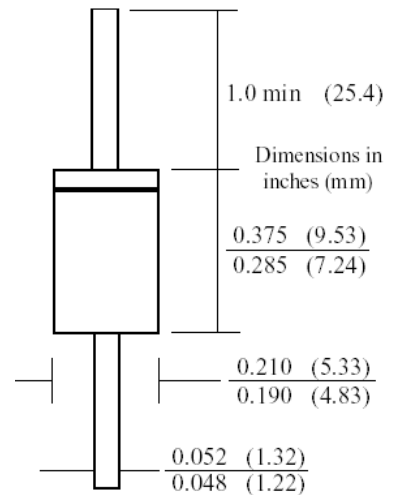


1A to 3A, Standard Axial Rectifiers



Features:

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



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 0.375" lead length at $T_A = 75^\circ\text{C}$	3.0	A
$i_{f(\text{surge})}$	Peak Forward Surge Current 8.3ms single half-sine-wave Superimposed on rated load (JEDEC method)	200	
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		

*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	5404	5406	5407	5408	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	
Maximum Reverse Current at rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500							μA
Maximum Forward Voltage at 3.0A	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



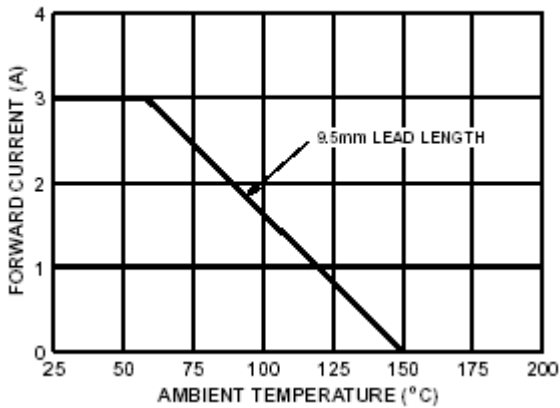
1N5400 - 1N5408

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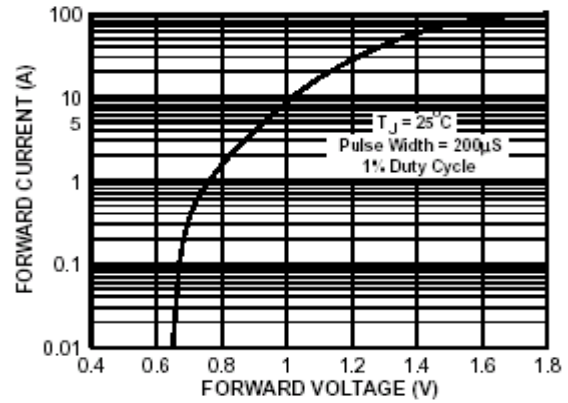


Typical Characteristics

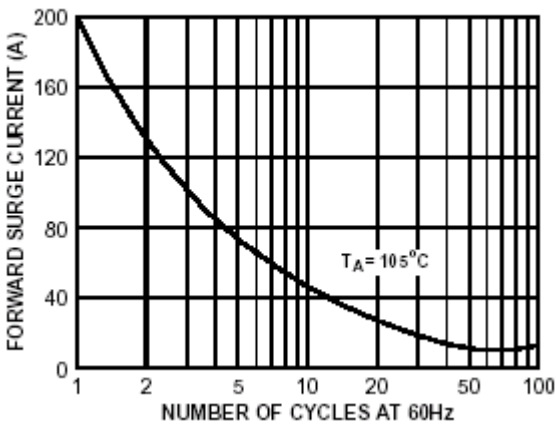
Forward Current Derating Curve



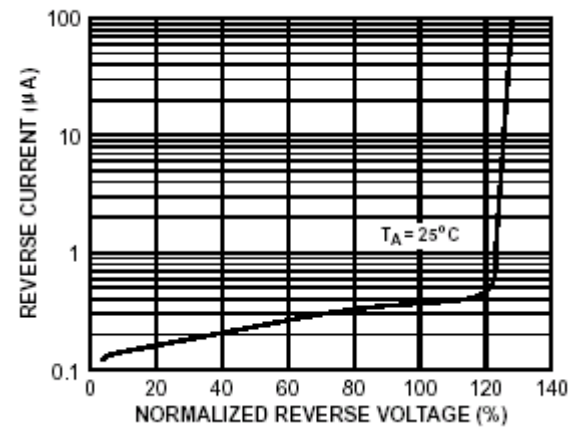
Forward Characteristics



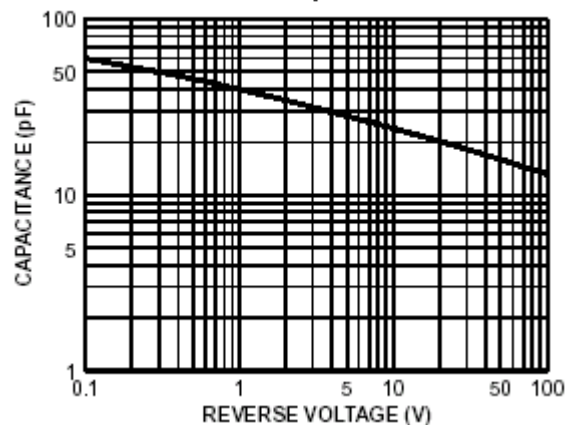
Overload Surge Current



Reverse Characteristics



Junction Capacitance



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Power Diode

Specifications

V_{RRM} maximum Voltage	I_f (av) A	I_{fsm} A	Plastic Package	Part Number
50	3	200	DO-201AD	1N5400
100				1N5401
200				1N5402
400				1N5404
600				1N5406
800				1N5407
1000				1N5408

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Power Diode



Notes:

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