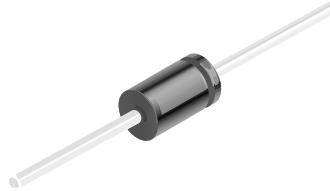




# 1N5391 - 1N5399

## Features

- 1.5 ampere operation at  $T_A = 70^\circ\text{C}$  with no thermal runaway.
- High current capability.
- Low leakage.



**DO-15**  
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## General Purpose Rectifiers

### Absolute Maximum Ratings\*

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

Symbol	Parameter	Value										Units
		5391	5392	5393	5394	5395	5396	5397	5398	5399		
$V_{RRM}$	Peak Repetitive Reverse Voltage	50	100	200	300	400	500	600	800	1000	V	
$I_{F(AV)}$	Average Rectified Forward Current, .375" lead length @ $T_A = 75^\circ\text{C}$	1.5										A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	50										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	4.8	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	26	$^\circ\text{C}/\text{W}$

## Electrical Characteristics

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

Symbol	Parameter	Device										Units
		5391	5392	5393	5394	5395	5396	5397	5398	5399		
$V_F$	Forward Voltage @ 1.5 A	1.4										V
$I_R$	Reverse Current @ rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 300										$\mu\text{A}$ $\mu\text{A}$
$C_T$	Total Capacitance $V_R = 4.0\text{ V}$ , $f = 1.0\text{ MHz}$	25										pF

Typical Characteristics

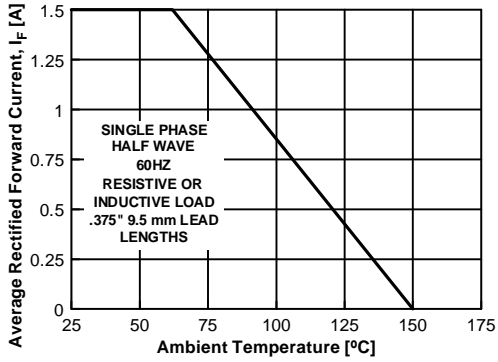


Figure 1. Forward Current Derating Curve

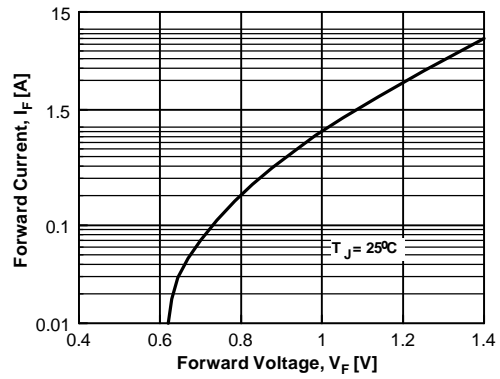


Figure 2. Forward Voltage Characteristics

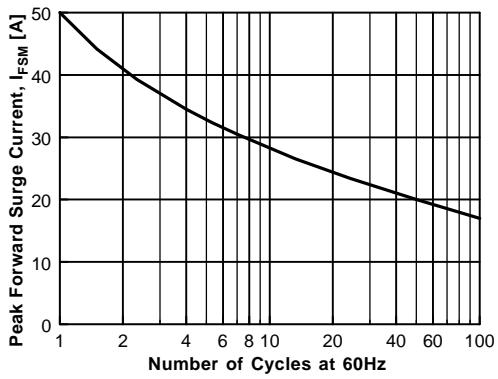


Figure 3. Non-Repetitive Surge Current

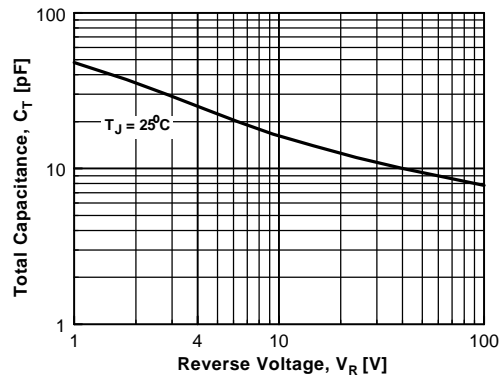


Figure 4. Total Capacitance

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FACT <sup>TM</sup>	MicroPak <sup>TM</sup>	Quiet Series <sup>TM</sup>	UHC <sup>TM</sup>	
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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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