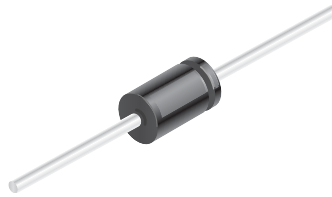


# 1N5391 - 1N5399

## General Purpose Rectifiers

### Features

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



**DO-15**  
Color Band Denotes Cathode

### 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
$R_{\theta JL}$	Thermal Resistance, Junction to Lead *	26	$^\circ\text{C}/\text{W}$

\* Mounted on 0.375" (9.5mm) PCB

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

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

### Typical Performance Characteristics

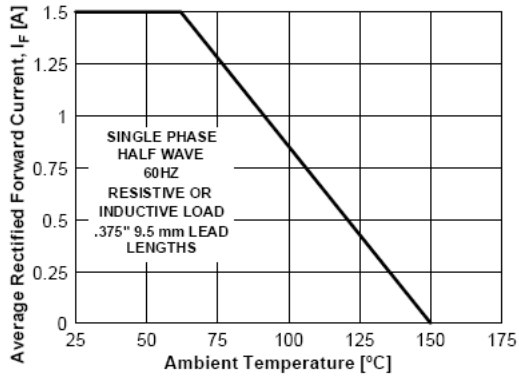


Figure 1. Forward Current Derating Curve

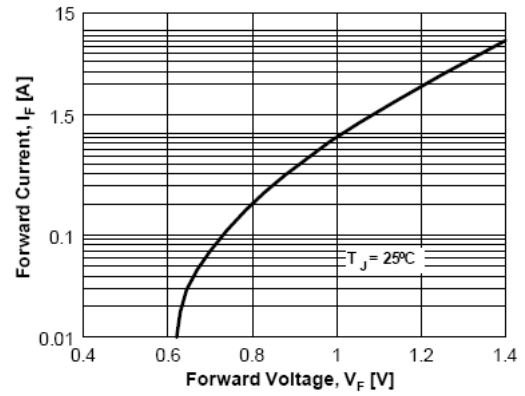


Figure 2. Forward Voltage Characteristics

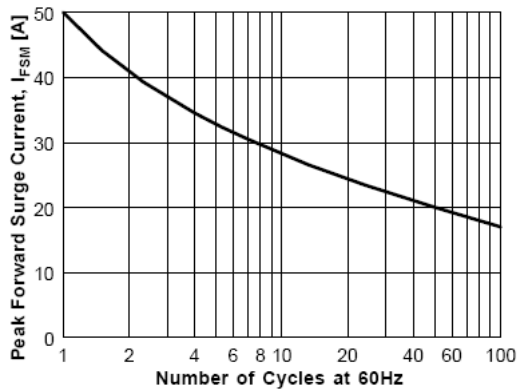


Figure 3. Non-Repetitive Surge Current

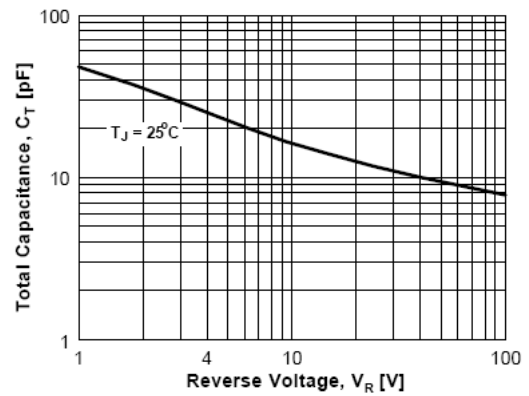








Figure 4. Total Capacitance



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EcoSPARK®	IntelliMAX™	Saving our world, 1mW/W/kW at a time™	TinyPwm™
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Fairchild®	MicroPak™	SuperFET™	
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FETBench™		Sync-Lock™	XS™
FlashWriter®*	PDP SPM™		
	Power-SPM™		

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