

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	$^\circ\text{C/W}$

* 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 $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	5.0 300									μA μA
C_T	Total Capacitance $V_R=4.0$ V, $f=1.0\text{MHz}$	25									pF

Typical Performance Characteristics

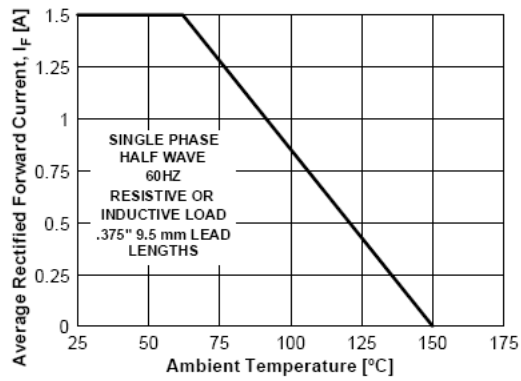


Figure 1. Forward Current Derating Curve

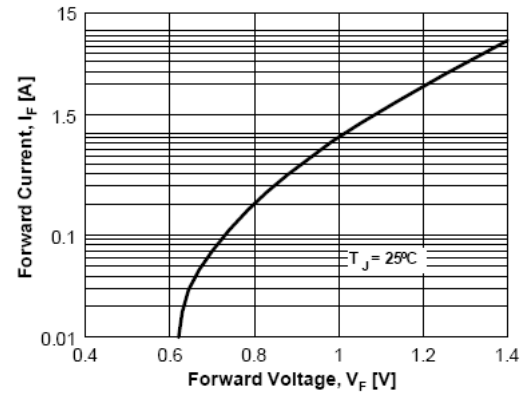


Figure 2. Forward Voltage Characteristics

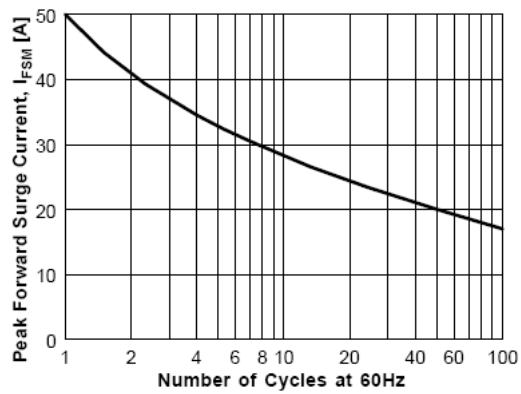


Figure 3. Non-Repetitive Surge Current

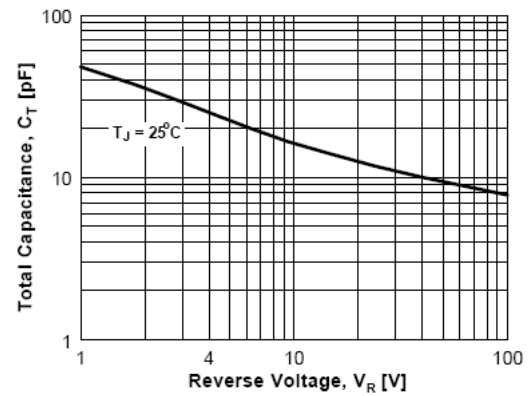


Figure 4. Total Capacitance



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