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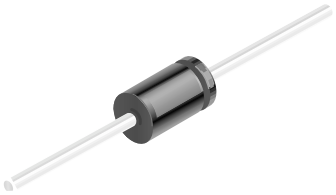
FAIRCHILD
SEMICONDUCTOR®

1N4933GP - 1N4937GP

Features

- Low forward voltage drop.
- High surge current capability.
- High reliability.
- High current capability.



DO-41
COLOR BAND DENOTES CATHODE

Fast Rectifiers (Glass Passivated)

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value					Units
		4933G	4934	4935	4936	4937	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	V
$I_{F(AV)}$	Average Rectified Forward Current, .375 " lead length @ T_A = 75°C	1.0					A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	30					A
T_{stg}	Storage Temperature Range	-65 to +175					°C
T_J	Operating Junction Temperature	-65 to +175					°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	2.73	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	55	°C/W

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter	Device					Units
		4933G	4934	4935	4936	4937	
V_F	Forward Voltage @ 1.0 A	1.2					V
t_{rr}	Reverse Recovery Time I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A	150					ns
I_R	Reverse Current @ rated V_R T_A = 25°C T_A = 125°C	5.0 100					µA µA
C_T	Total Capacitance V_R = 4.0 V, f = 1.0 MHz	15					pF

Typical Characteristics

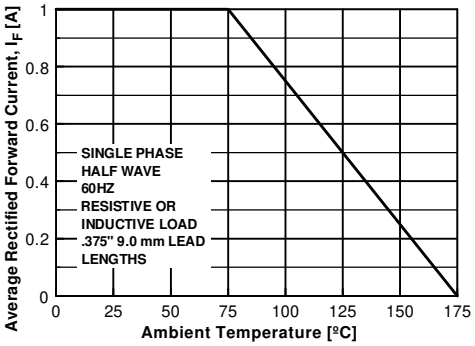


Figure 1. Forward Current Derating Curve

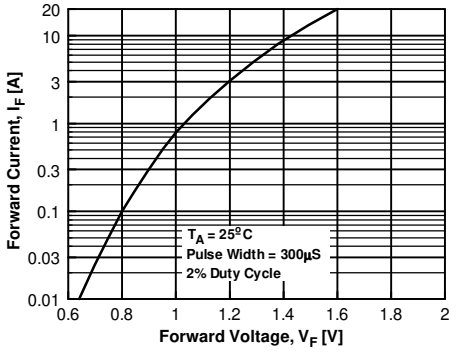


Figure 2. Forward Voltage Characteristics Reverse Characteristics

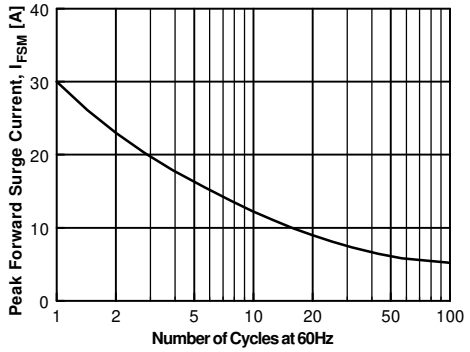


Figure 3. Non-Repetitive Surge Current

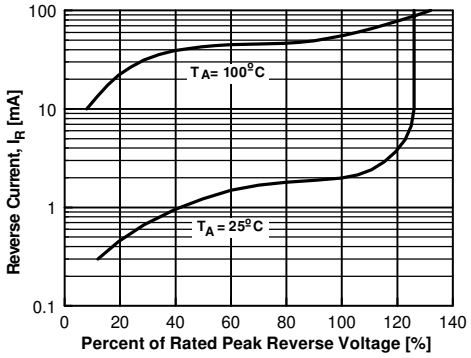


Figure 4. Reverse Current vs Reverse Voltage

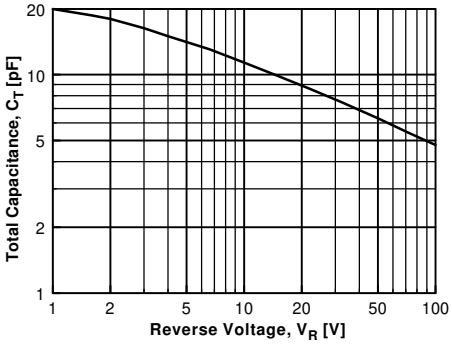
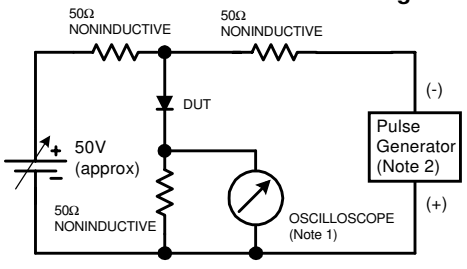
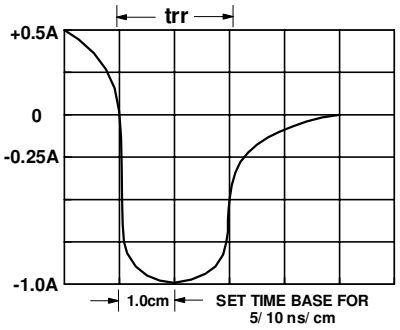


Figure 5. Total Capacitance



NOTES:
1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
2. Rise time = 10 ns max; Source impedance = 50 ohms.



Reverse Recovery Time Characterstic and Test Circuit Diagram

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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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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