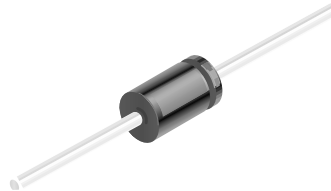




1N4933GP - 1N4937GP

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 _{θJA} | 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

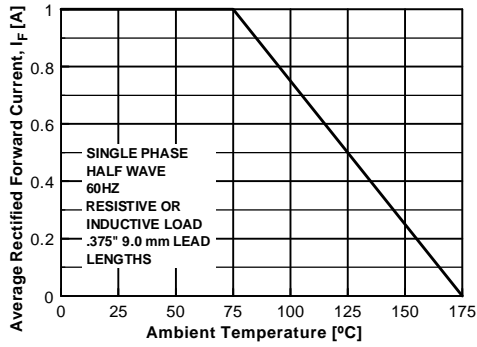


Figure 1. Forward Current Derating Curve

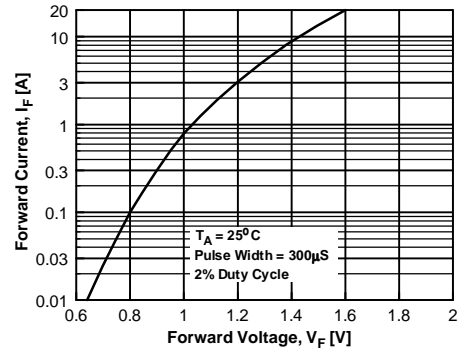


Figure 2. Forward Voltage Characteristics
Reverse Characteristics

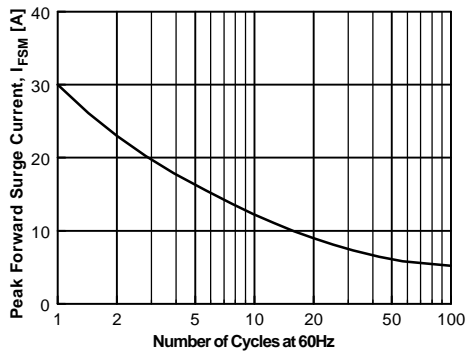


Figure 3. Non-Repetitive Surge Current

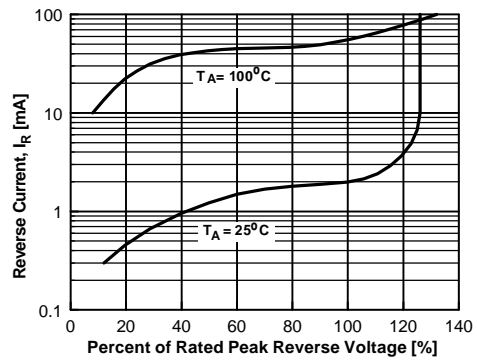


Figure 4. Reverse Current vs Reverse Voltage

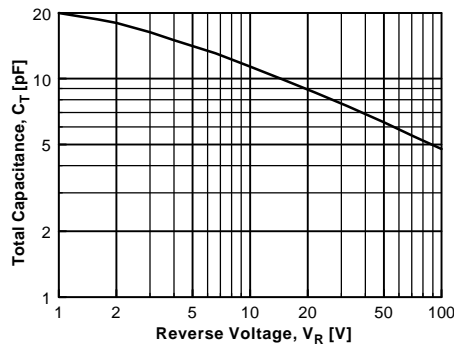
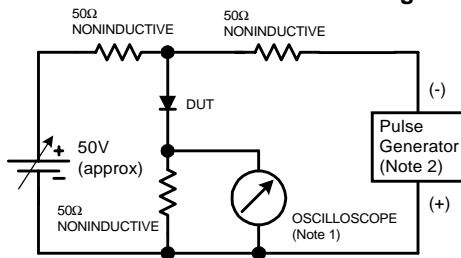
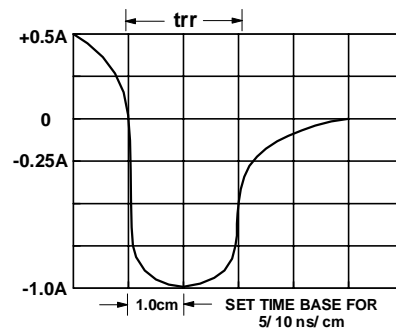


Figure 5. Total Capacitance



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 Characteristic and Test Circuit Diagram

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