

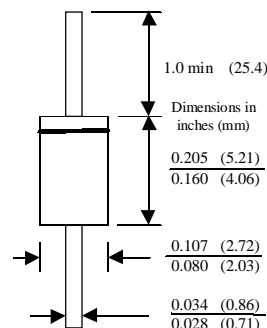
1N4933GP - 1N4937GP

Features

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



DO-41
COLOR BAND DENOTES CATHODE



1.0 Ampere Glass Passivated Fast Recovery Rectifiers

Absolute Maximum Ratings*

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

Symbol	Parameter	Value	Units
I_O	Average Rectified Current .375" lead length @ $T_A = 75^\circ\text{C}$	1.0	A
$I_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P_D	Total Device Dissipation Derate above 25°C	2.73 18	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	55	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-65 to +175	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +175	$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

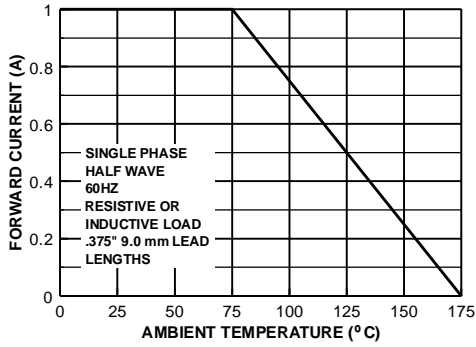
Electrical Characteristics

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

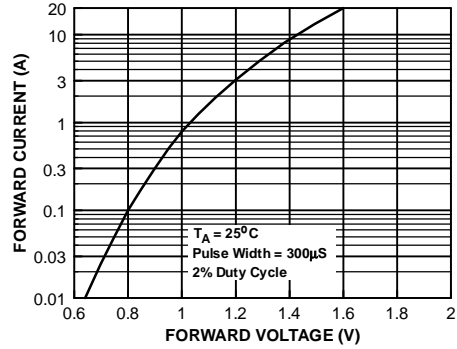
Parameter	Device					Units
	4933GP	4934GP	4935GP	4936GP	4937GP	
Peak Repetitive Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	420	V
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	V
Maximum Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$	5.0					μA
$T_A = 125^\circ\text{C}$	100					μA
Maximum Reverse Recovery Time $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$	150					nS
Maximum Forward Voltage @ 1.0 A	1.2					V
Typical Junction Capacitance $V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$	15					pF

Typical Characteristics

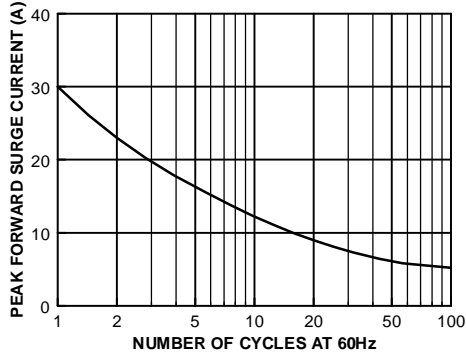
Forward Current Derating Curve



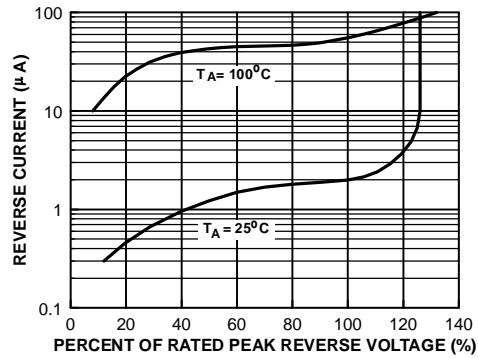
Forward Characteristics



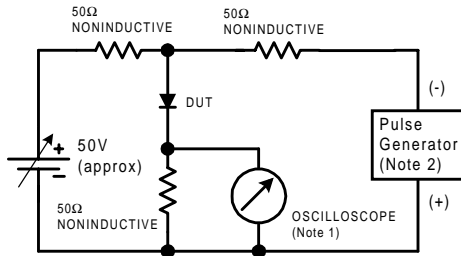
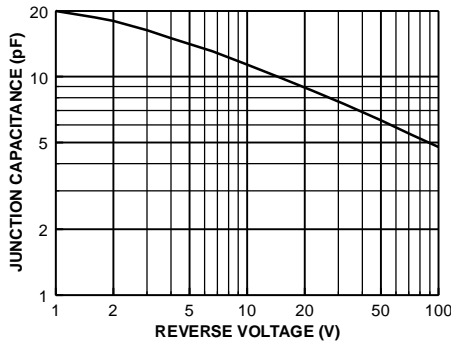
Non-Repetitive Surge Current



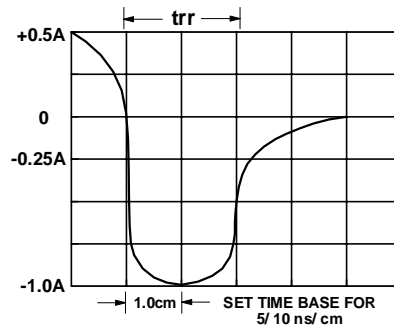
Reverse Characteristics



Typical Junction 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