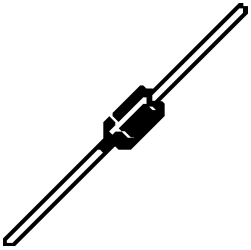
Semiconductor *Data Sheet*

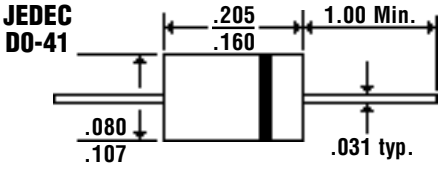
1.0 Amp FAST RECOVERY PLASTIC RECTIFIERS

1N4933 . . . 37 Series

Description



Mechanical Dimensions



Features

- **FAST SWITCHING FOR HIGH EFFICIENCY**
- **HIGH SURGE CAPABILITY**
- **1.0 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY**
- **MEETS UL SPECIFICATION 94V-0**

	1N4933 . . . 37 Series					**Units**
Maximum Ratings	**1N4933**	**1N4934**	**1N4935**	**IN4936**	**IN4937**	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	200	400	600	Volts
RMS Reverse Voltage...$V_{R(rms)}$	35	70	140	280	420	Volts
DC Blocking Voltage...V_{DC}	50	100	200	400	600	Volts
Average Forward Rectified Current...$I_{F(av)}$ T_A = 55°C	..... 1.0					Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} @ Rated Current & Temp	..... 30					Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	..... -65 to 150					°C
Electrical Characteristics						
Maximum Forward Voltage @ 1.0A...V_F	..... 1.2					Volts
Maximum DC Reverse Current...I_R @ 25°C	..... 5.0					µAmps
@ Rated DC Blocking Voltage @ 100°C	..... 100					µAmps
Typical Junction Capacitance...C_J *(Note 1)*	..... 12					pF
Maximum Reverse Recovery Time...t_{RR}	..... 200					ns

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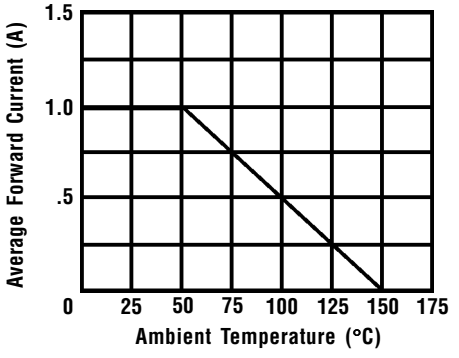
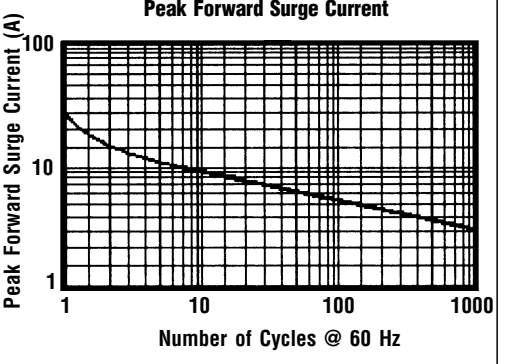
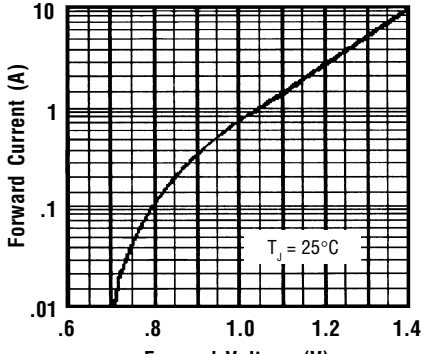
Forward Current Derating Curve



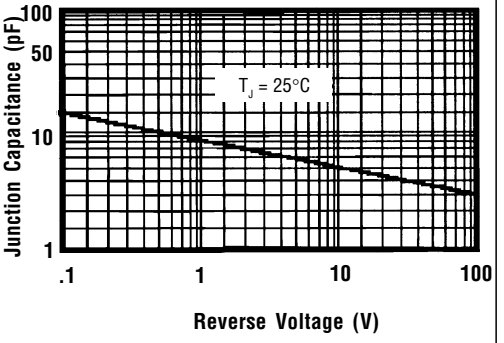
Non-Repetitive Peak Forward Surge Current

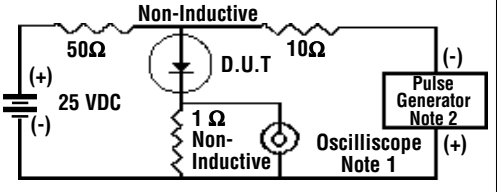


Typical Instantaneous Forward Characteristics



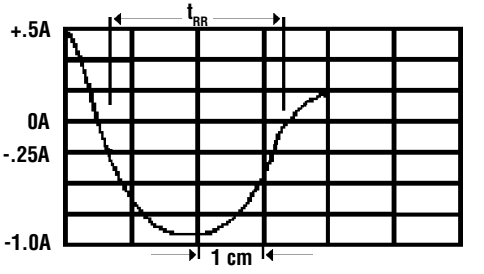
Typical Junction Capacitance





Notes: 1. Rise Time = 7 ns Max.
Impedance = 1 megohm, 22 pF
2. Rise Time = 10 ns Max.
Source Impedance = 50 Ohms

Reverse Recovery Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

NOTES: 1. Measured @ 1 MHz and applied reverse voltage of 4.0V.
2. Thermal Resistance Junction to Ambient, Jedec Method.