

# 1N4933 THRU 1N4937

## FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE:50 TO 600V      CURRENT: 1.0A



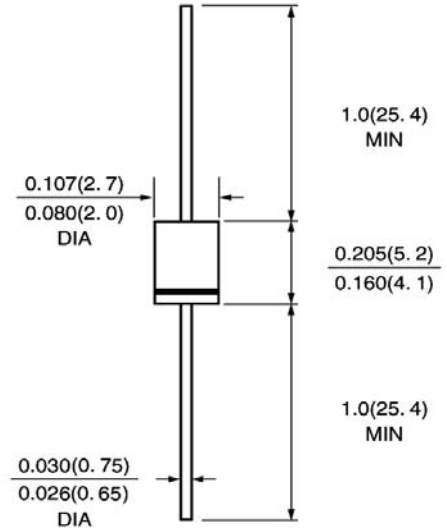
### FEATURE

Molded case feature for auto insertion  
 High current capability  
 Low leakage current  
 High surge capability  
 High temperature soldering guaranteed  
 250°C/10sec/0.375"lead length at 5 lbs tension  
 Fast switching for high efficiency

### MECHANICAL DATA

Terminal:Plated axial leads solderable per  
 MIL-STD 202E, method 208C  
 Case:Molded with UL-94 Class V-0 recognized Flame  
 Retardant Epoxy  
 Polarity:color band denotes cathode  
 Mounting position:any

### DO-41\DO-204AL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	1N 4933	1N 4934	1N 4935	1N 4936	1N 4937	units
* Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	400	600	V
* Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	280	420	V
* Maximum DC blocking Voltage	V <sub>dc</sub>	50	100	200	400	600	V
* Maximum Average Forward Rectified Current 3/8"lead length at Ta =75°C	I <sub>f(av)</sub>	1.0					A
* Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	30.0					A
* Maximum Forward Voltage at rated Forward Current and 25°C	V <sub>f</sub>	1.2					V
* Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I <sub>r</sub>	5.0 100.0					μA μA
* Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	200.0					nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	15.0					pF
Typical Thermal Resistance (Note 3)	R <sub>th(ja)</sub>	50.0					°C/W
Storage and Operation Junction Temperature	T <sub>stg,Tj</sub>	-50 to +150					°C

Note:

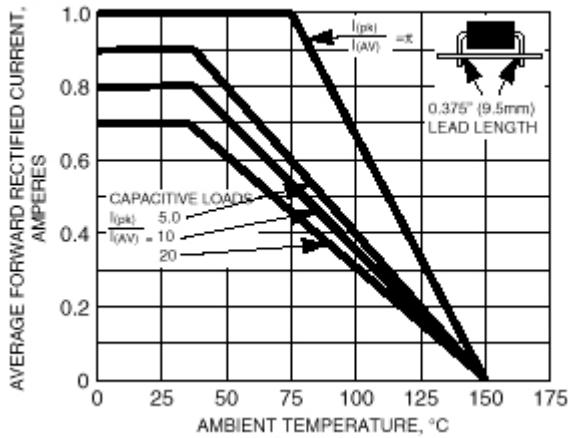
- Reverse Recovery Condition I<sub>f</sub> =1.0A, V<sub>r</sub>=30V
  - Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>dc</sub>
  - Thermal Resistance from Junction to Ambient at 0.375"lead length, P.C. Board Mounted
- \* JEDEC registered value<sup>1</sup>

<sup>1</sup> Rev.A5, 29-Dec-10

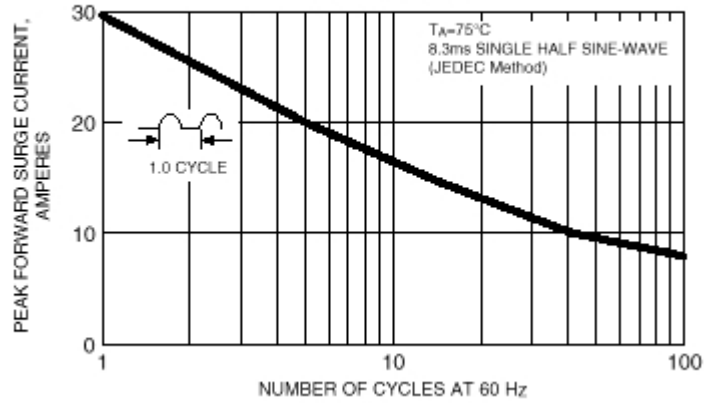
# RATINGS AND CHARACTERISTIC CURVES 1N4933 THRU 1N4937

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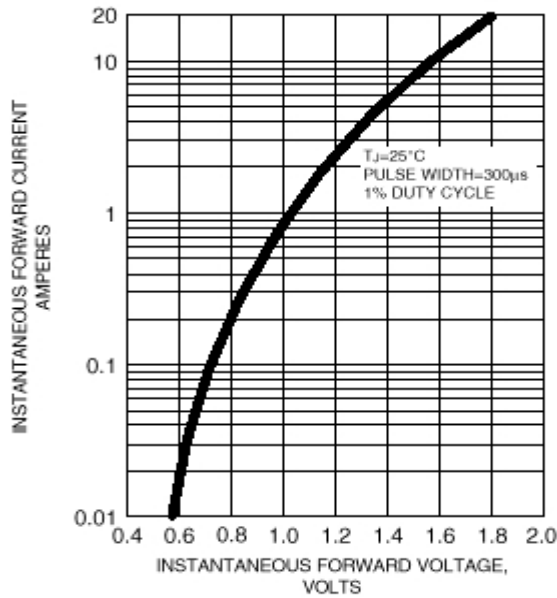
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



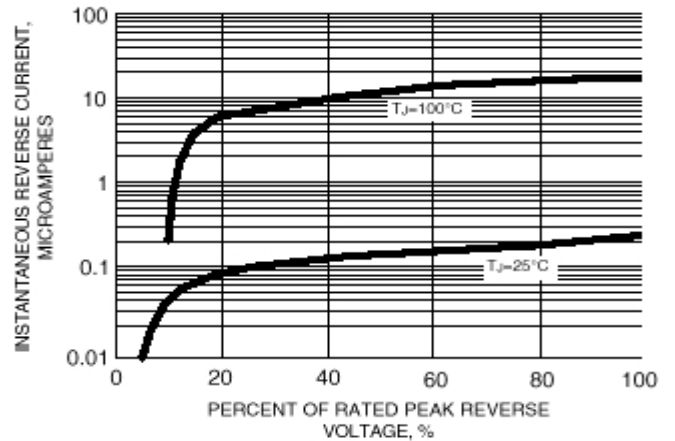
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



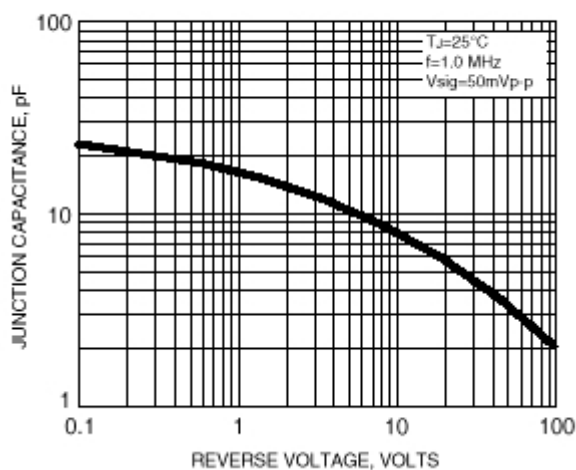
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

