

# 1N4933-1N4937

## FAST RECOVERY RECTIFIERS

High-reliability discrete products and engineering services since 1977

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

#### MAXIMUM RATINGS

Symbol	1N4933	1N4934	1N4935	1N4936	1N4937	Unit
V <sub>RRM</sub>						
V <sub>RWM</sub>	50	100	200	400	600	Volts
V <sub>R</sub>						
V <sub>RSM</sub>	75	150	250	450	650	Valta
V <sub>R(RMS)</sub>	35	70	140	280	420	Volts
Io			1.0			Amp
I <sub>FSM</sub>			30			Amps
TJ			CE += +150			°C
$T_{stg}$	-65 to +150					
R <sub>θJC</sub>			65			°C/W
	VRRM VRWM VR VRSM VR(RMS) Io Io I <sub>FSM</sub> T <sub>J</sub> T <sub>stg</sub>	VRRM 50   VRWM 50   VR 50   VR 35   Io 1   IFSM 1   TJ Tstg	VRRM VRWM 50 100   VR 50 100   VR 50 100   VR 50 150   VRM 35 70   Io I I   Issa I I   Tj Tstg I	VRRM VRWM VRWM 50 100 200   VRSM VR 75 150 250   VRSM VR(RMS) 35 70 140   Io 1.0 30 30   TJ Tstg -65 to +150 -65 to +150	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $

Note 1: Derate by 20% for capacitive loads.

#### **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise specified)

Characteristics	Symbol	Min	Тур	Max	Unit
Instantaneous forward voltage (I <sub>F</sub> = 3.14A, T <sub>J</sub> = 125°C)	V <sub>F</sub>	-	1.0	1.2	Volts
Forward voltage (I <sub>F</sub> = 1.0A, T <sub>A</sub> = 25°C)	V <sub>F</sub>	-	1.0	1.1	Volts
Reverse current (rated dc voltage) $T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$	I <sub>R</sub>	-	1.0 50	5.0 100	μΑ
REVERSE RECOVERY CHARACTERISTICS	J				
Reverse recovery time $(I_F = 1.0A \text{ to } V_R = 30\text{Vdc})$ $(I_{FM} = 15A, \text{ di/dt} = 10A/\mu \text{s})$	t <sub>rr</sub>	-	150 175	200 300	ns
Reverse recovery current ( $I_F = 1.0A$ to $V_R = 30Vdc$ )	I <sub>RM(REC)</sub>	-	1.0	2.0	Amps



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### MECHANICAL CHARACTERISTICS

Case	DO-41
Marking	Body painted, alpha-numeric
Polarity	Cathode band



	DO-41				
	Inches		Millimeters		
	Min	Max	Min	Max	
BD		0.107	-	2.720	
BL	(5)	0.205	=	5.207	
LD	0.028	0.034	0.711	0.864	
LL	1.000	182	25.400		