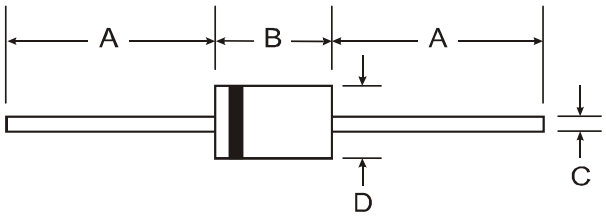
1N4933 - 1N4937

1.0A FAST RECOVERY RECTIFIER

Please click here to visit our online spice models database.

Features

- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 4)**



Dim	DO-41 Plastic	
	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Mechanical Data

- Case: DO-41
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Finish - Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208 e3
- Polarity: Cathode Band
- Mounting Position: Any
- Ordering Information: See Page 2
- Marking: Type Number
- 0.35 grams (approximate)

Maximum Ratings and Electrical Characteristics

@T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N4933	1N4934	1N4935	1N4936	1N4937	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage (Note 5)	V_{RRM} V_{RWM} V_R	50	100	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	V
Average Rectified Output Current (Note 1) @ T_A = 75°C	I_O	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30					A
Forward Voltage Drop @ I_F = 1.0A	V_{FM}	1.2					V
Peak Reverse Current @T_A = 25°C at Rated DC Blocking Voltage (Note 5) @ T_A = 100°C	I_{RM}	5.0 100					μA
Reverse Recovery Time (Note 3)	t_{rr}	200					ns
Typical Total Capacitance (Note 2)	C_T	15					pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100					°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150					°C

Notes:
1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Measured with I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A.
4. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.
5. Short duration pulse test used to minimize self-heating effect.

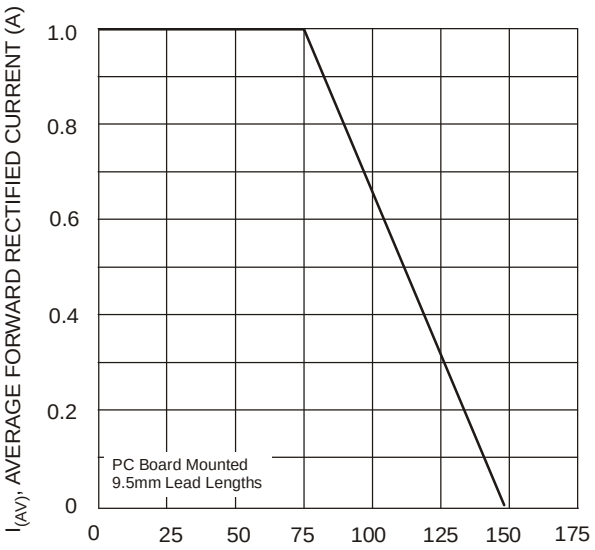


Fig. 1 Forward Current Derating Curve

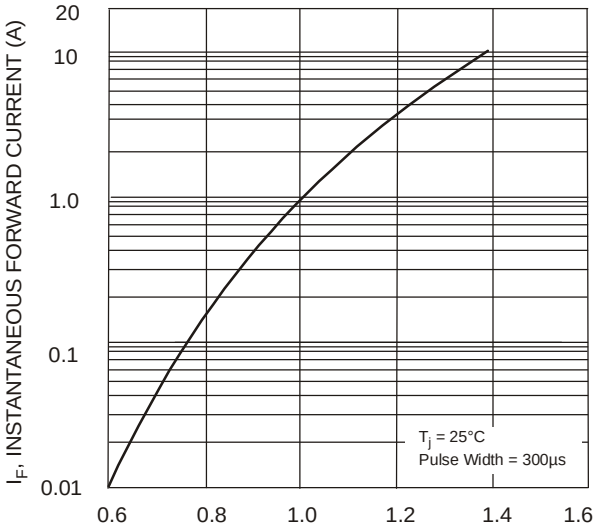


Fig. 2 Typical Forward Characteristics

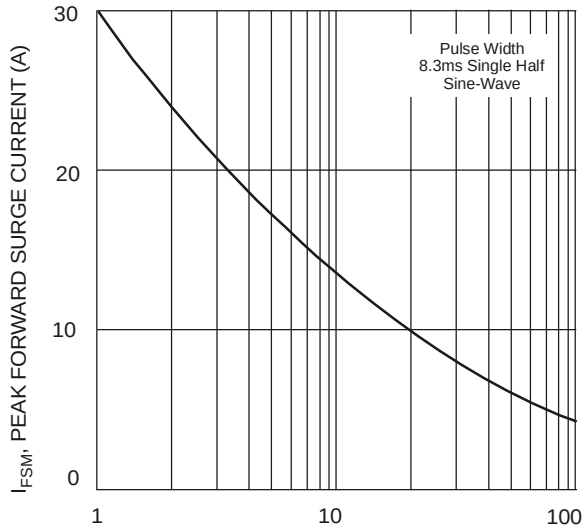


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

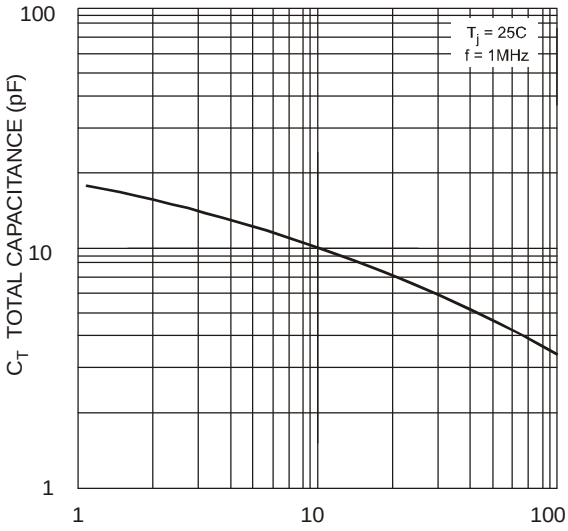


Fig. 4 Typical Total Capacitance

Ordering Information (Note 6)

Device	Packaging	Shipping
1N4933-T	DO-41	5K/Tape & Reel, 13-inch
1N4934-T	DO-41	5K/Tape & Reel, 13-inch
1N4935-T	DO-41	5K/Tape & Reel, 13-inch
1N4936-T	DO-41	5K/Tape & Reel, 13-inch
1N4937-T	DO-41	5K/Tape & Reel, 13-inch

Notes: 6. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.