



1N4933/L - 1N4937/L

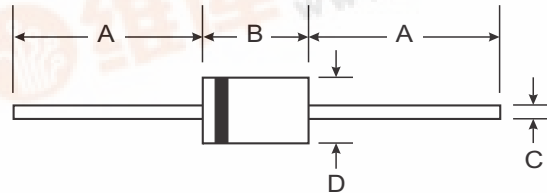
1.0A FAST RECOVERY RECTIFIER

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)**

Mechanical Data

- Case: DO-41, A-405
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: DO-41 0.35 grams (approximate)
A-405 0.20 grams (approximate)



Dim	DO-41 Plastic		A-405	
	Min	Max	Min	Max
A	25.40	—	25.40	—
B	4.06	5.21	4.10	5.20
C	0.71	0.864	0.53	0.64
D	2.00	2.72	2.00	2.70

All Dimensions in mm

"L" Suffix Designates A-405 Package
No Suffix Designates DO-41 Package

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	1N4933/L	1N4934/L	1N4935/L	1N4936/L	1N4937/L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	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) @ $T_A = 75^\circ\text{C}$	I_O	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30					A
Forward Voltage Drop @ $I_F = 1.0\text{A}$	V_{FM}	1.2					V
Peak Reverse Current at Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 100					μA
Reverse Recovery Time (Note 3)	t_{rr}	200					ns
Typical Junction Capacitance (Note 2)	C_j	15					pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100					K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150					$^\circ\text{C}$

- 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 $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $t_{rr} = 0.25\text{A}$.
4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

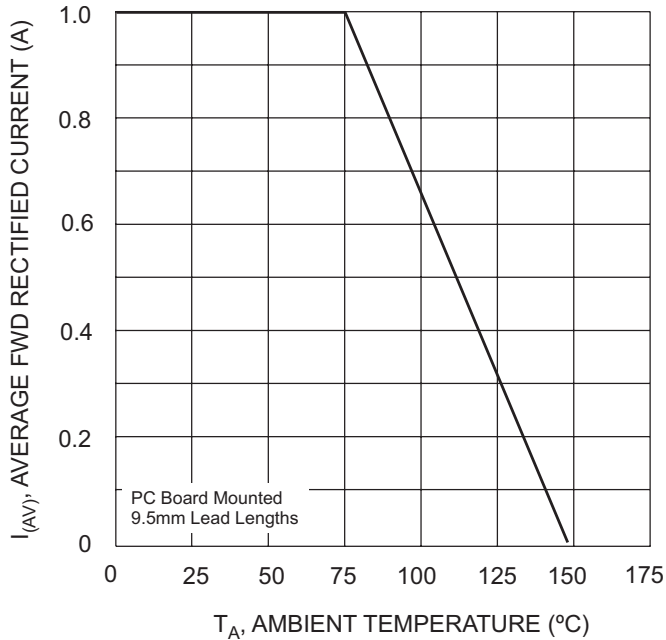


Fig. 1 Forward Current Derating Curves

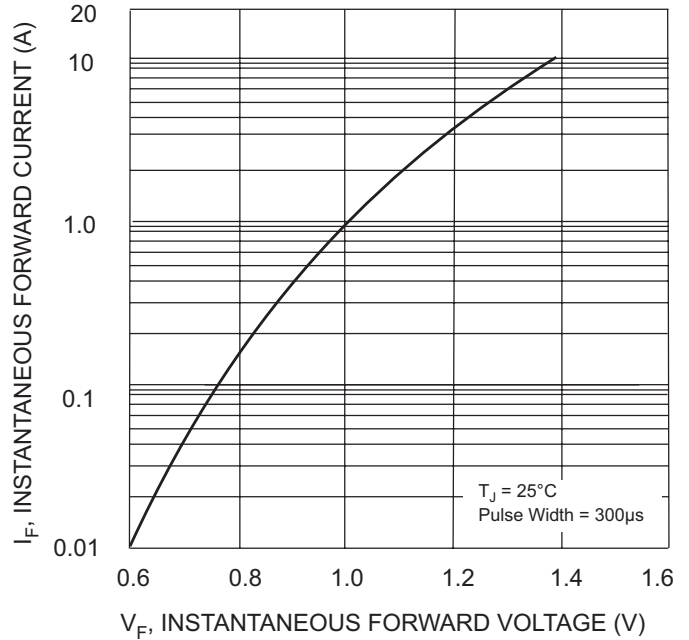


Fig. 2 Typical Forward Characteristics

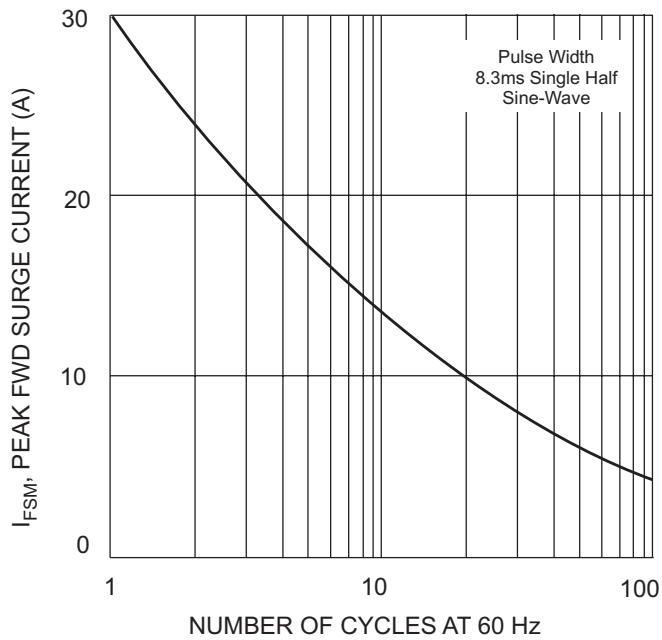


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

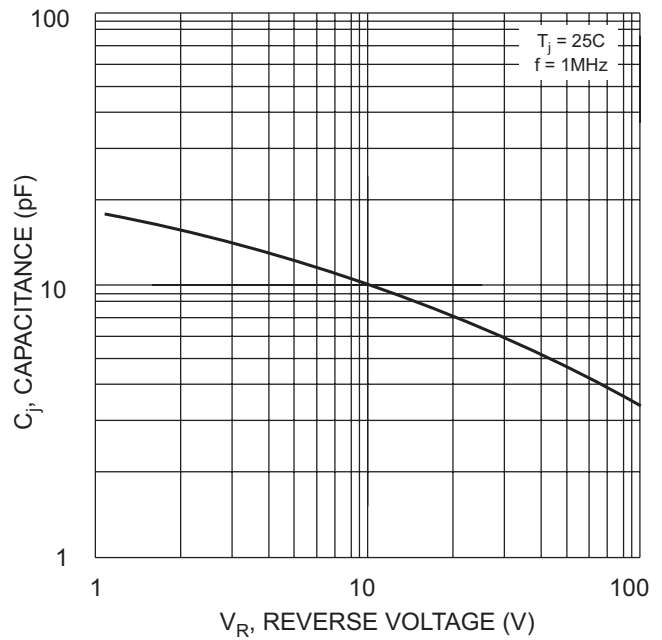


Fig. 4 Typical Junction Capacitance



Ordering Information (Note 5)

Device	Packaging	Shipping
1N4933-A	DO-41	5K/Ammo Pack
1N4933-B	DO-41	1K/Bulk
1N4933-T	DO-41	5K/Tape & Reel, 13-inch
1N4934-A	DO-41	5K/Ammo Pack
1N4934-B	DO-41	1K/Bulk
1N4934-T	DO-41	5K/Tape & Reel, 13-inch
1N4935-A	DO-41	5K/Ammo Pack
1N4935-B	DO-41	1K/Bulk
1N4935-T	DO-41	5K/Tape & Reel, 13-inch
1N4936-A	DO-41	5K/Ammo Pack
1N4936-B	DO-41	1K/Bulk
1N4936-T	DO-41	5K/Tape & Reel, 13-inch
1N4937-A	DO-41	5K/Ammo Pack
1N4937-B	DO-41	1K/Bulk
1N4937-T	DO-41	5K/Tape & Reel, 13-inch
1N4933L-T	A-405	5K/Tape & Reel, 13-inch
1N4934L-T	A-405	5K/Tape & Reel, 13-inch
1N4935L-T	A-405	5K/Tape & Reel, 13-inch
1N4936L-T	A-405	5K/Tape & Reel, 13-inch
1N4937L-T	A-405	5K/Tape & Reel, 13-inch

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>