

# 1N4933S THRU 1N4937S

## FAST RECOVERY RECTIFIERS

Reverse Voltage – 50 to 600 V

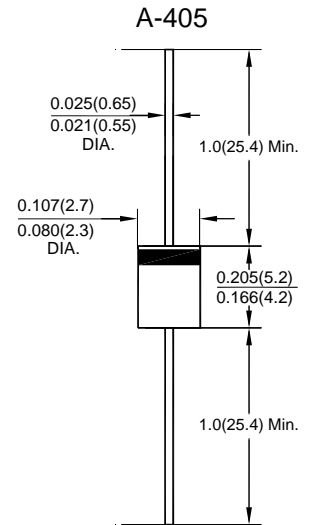
Forward Current – 1 A

### Features

- Low reverse leakage
- High forward surge current capability
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique

### Mechanical Data

- **Case:** A-405, Molded plastic.
- **Terminals:** Plated Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any



Dimensions in inches and (millimeters)

### Absolute Maximum Ratings and Characteristics

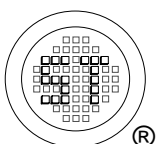
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	1N4933S	1N4934S	1N4935S	1N4936S	1N4937S	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) lead lengths at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1					A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30					A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.2					V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$	$I_R$	5 50					$\mu\text{A}$
Maximum Reverse Recovery Time <sup>1)</sup>	$t_{rr}$	200					ns
Typical Junction Capacitance <sup>2)</sup>	$C_J$	15					pF
Typical Thermal Resistance <sup>3)</sup>	$R_{\theta JA}$	50					$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_S$	- 65 to + 150					$^\circ\text{C}$

<sup>1)</sup> Reverse recovery condition  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C.

<sup>2)</sup> Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B mounted.



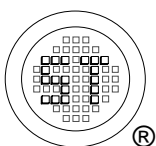
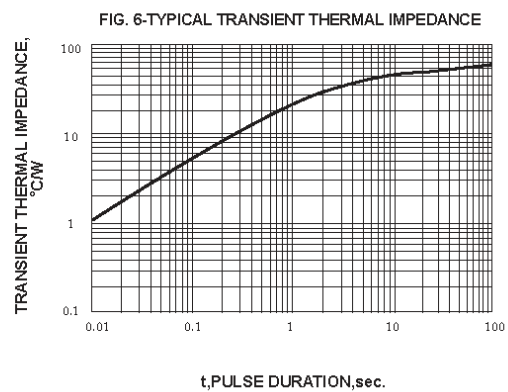
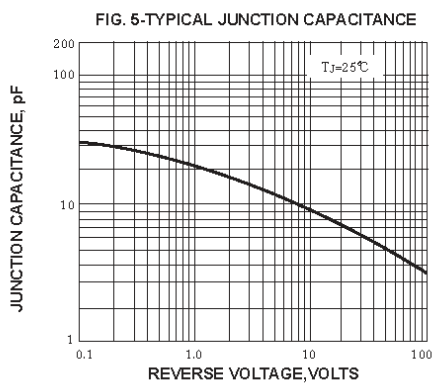
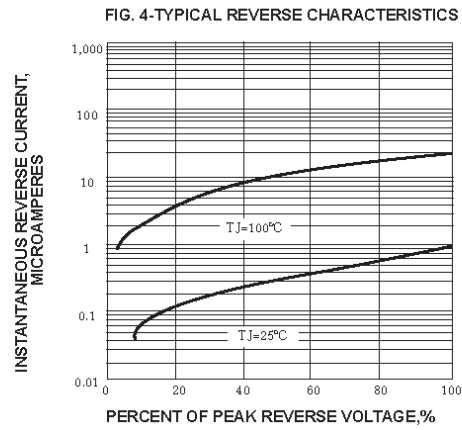
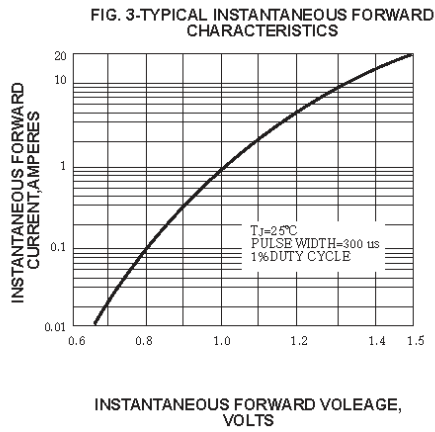
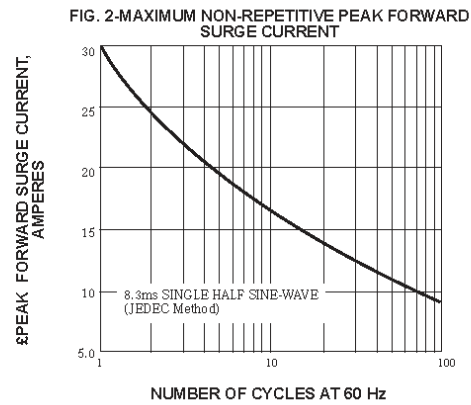
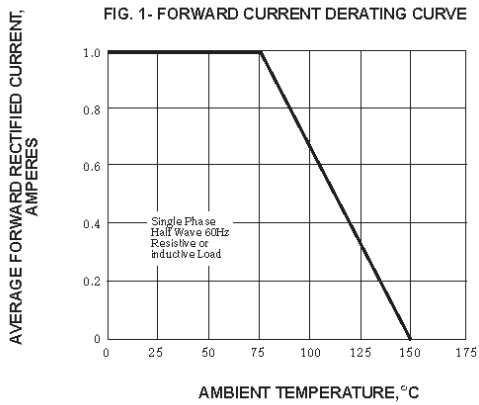
**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 20/02/2008 C

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