

# Silicon Diode

## **1N4936GP**

400V / 1A

# DATASHEET

OEM – General Semiconductor

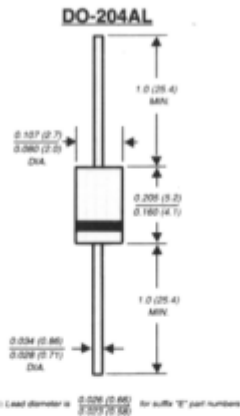
Source: General Semiconductor Databook 1998

# 1N4933GP THRU 1N4937GP

## GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 600 Volts      Forward Current - 1.0 Ampere

**PATENTED\***



Dimensions in inches and (millimeters)  
 \* Glass-plastic encapsulation is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306



### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ For use in high frequency rectifier circuits
- ◆ Fast switching for high efficiency
- ◆ Glass passivated cavity-free junction
- ◆ 1.0 Ampere operation at  $T_A=75^\circ\text{C}$  with no thermal runaway
- ◆ Typical  $I_R$  less than  $0.1\mu\text{A}$
- ◆ High temperature soldering guaranteed:  $350^\circ\text{C}/10$  seconds,  $0.375''$  (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-204AL molded plastic over glass body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.012 ounce, 0.34 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

	SYMBOLS	1N 4933GP	1N 4934GP	1N 4935GP	1N 4936GP	1N 4937GP	UNITS
* Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	Volts
* Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	Volts
* Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0					Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0					Amps
* Maximum instantaneous forward voltage at 1.0A	$V_F$	1.2					Volts
* Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0 100.0					$\mu\text{A}$
* Maximum reverse recovery time (NOTE 1)	$t_{rr}$	200.0					ns
Typical junction capacitance (NOTE 2)	$C_J$	15.0					pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	55.0					$^\circ\text{C}/\text{W}$
* Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$

**NOTES:**  
 (1) Reverse recovery test conditions:  $I_F=1.0\text{A}$ ,  $V_R=30$  Volts  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts  
 (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted  
 \* JEDEC registered values

**RATINGS AND CHARACTERISTIC CURVES 1N4933GP THRU 1N4937GP**

