

# Silicon Diode

## **1N5627GP**

800V / 3A

# DATASHEET

OEM – General Semiconductor

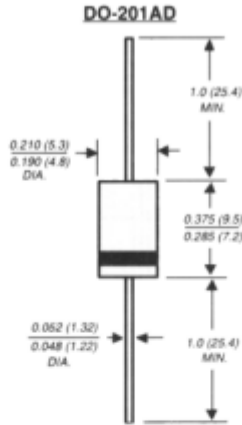
Source: General Semiconductor Databook 1998

# 1N5624GP THRU 1N5627GP

## GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 800 Volts Forward Current - 3.0 Amperes

**PATENTED \***



Dimensions in inches and (millimeters)

\* Glass-plastic encapsulation technique 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
- Glass passivated cavity-free junction
- Capable of meeting environmental standards of MIL-S-19500
- 3.0 Ampere operation at  $T_A=70^\circ\text{C}$  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-201AD 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:** 0.04 ounce, 1.12 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	1N5624GP	1N5625GP	1N5626GP	1N5627GP	UNITS
* Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	Volts
* Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead lengths at $T_A=70^\circ\text{C}$	$I_{(AV)}$	3.0				Amps
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	125.0				Amps
* Maximum instantaneous forward voltage at 3.0A $T_A=25^\circ\text{C}$ $T_A=70^\circ\text{C}$	$V_F$	1.0 0.95				Volts
Maximum reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	$I_R$	300.0		200.0		$\mu\text{A}$
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead length at $T_A=70^\circ\text{C}$	$I_{R(AV)}$	200.0				$\mu\text{A}$
Typical reverse recovery time (NOTE 1)	$t_{rr}$	3.0				$\mu\text{s}$
Typical junction capacitance (NOTE 2)	$C_J$	40.0				pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	20.0				$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175				$^\circ\text{C}$

**NOTES:**

- (1) Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_L=0.25\text{A}$
  - (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>
  - (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted
- \*JEDEC Values

**RATINGS AND CHARACTERISTIC CURVES 1N5624GP THRU 1N5627GP**

