

Silicon Diode

1N4248GP

800V / 1A

DATASHEET

OEM – General Semiconductor

Source: General Semiconductor Databook 1998

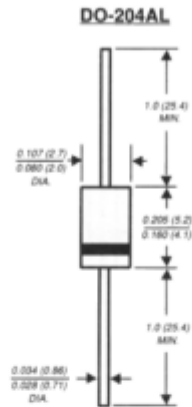
1N4245GP THRU 1N4249GP

GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 1.0 Ampere

PATENTED *



NOTE: Lead diameter is 0.026 (0.66) / 0.029 (0.74) for suffix "E" part numbers

Dimension in inches and (millimeters)

* Glass-plastic 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
- ◆ 1.0 Ampere operation at $T_A=55^{\circ}\text{C}$ with no thermal runaway
- ◆ 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, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | 1N 4245GP | 1N 4246GP | 1N 4247GP | 1N 4248GP | 1N 4249GP | UNITS |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------|--------------|-----------|-----------|-----------|-----------|-----------------------------|
| * Maximum repetitive peak reverse voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | Volts |
| * Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | 560 | 700 | Volts |
| * Maximum DC blocking voltage | V_{DC} | 200 | 400 | 600 | 800 | 1000 | Volts |
| * Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^{\circ}\text{C}$ | $I_{(AV)}$ | 1.0 | | | | | Amp |
| * Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 25.0 | | | | | Amps |
| * Maximum instantaneous forward voltage at 1.0A | V_F | 1.2 | | | | | Volts |
| * Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length $T_A=55^{\circ}\text{C}$ | $I_{R(AV)}$ | 50.0 | | | | | μA |
| * Maximum reverse current at rated DC blocking voltage $T_A=25^{\circ}\text{C}$ $T_A=125^{\circ}\text{C}$ | I_R | 1.0 25.0 | | | | | μA |
| Typical junction capacitance (NOTE 1) | C_J | 8.0 | | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 55.0 25.0 | | | | | $^{\circ}\text{C}/\text{W}$ |
| * Operating junction temperature range | T_J | -65 to +160 | | | | | $^{\circ}\text{C}$ |
| * Storage temperature range | T_{STG} | -65 to +175 | | | | | $^{\circ}\text{C}$ |

NOTES:

(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

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

* JEDEC registered values

RATINGS AND CHARACTERISTIC CURVES 1N4245GP THRU 1N4249GP

