

# Silicon Diode

## **1N4585GP**

800V / 1A

# DATASHEET

OEM – General Semiconductor

Source: General Semiconductor Databook 1998

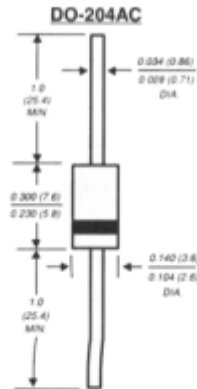
# 1N4383GP THRU 1N4385GP 1N4585GP AND 1N4586GP

## GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 1.0 Ampere

**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
- ◆ 1.0 Ampere operation at  $T_A=100^\circ\text{C}$  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-204AC 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:** 0.015 ounce, 0.4 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	1N 4383GP	1N 4384GP	1N 4385GP	1N 4585GP	1N 4586GP	UNITS
* Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	1000	Volts
* Maximum RMS voltage	VRMS	140	280	420	560	700	Volts
* Maximum DC blocking voltage	VDC	200	400	600	800	1000	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=100^\circ\text{C}$	$I_{(AV)}$	1.0					Amp
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=100^\circ\text{C}$	IFSM	50.0					Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.0					Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	5.0 250.0					$\mu\text{A}$
* Typical reverse recovery time (NOTE 1)	$t_{rr}$	2.0					$\mu\text{s}$
Maximum full load reverse current full cycle average at 0.375" (9.5mm) lead length at $T_A=100^\circ\text{C}$	$I_{R(AV)}$	275	250	225	200	200	$\mu\text{A}$
Typical junction capacitance (NOTE 2)	$C_J$	15.0					pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	45.0					$^\circ\text{C/W}$
* Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$

**NOTES:**

- (1) Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$
  - (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, PCB mounted
- \* JEDEC registered values

**RATINGS AND CHARACTERISTIC CURVES 1N4383GP THRU 1N4385GP,  
1N4585GP AND 1N4586GP**

