

Silicon Diode

1N4384GP

400V / 1A

DATASHEET

OEM – General Semiconductor

Source: General Semiconductor Databook 1998

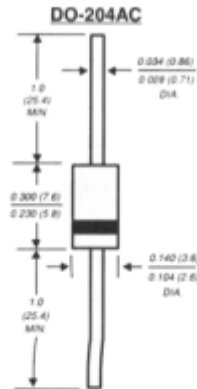
1N4383GP THRU 1N4385GP 1N4585GP AND 1N4586GP

GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 1.0 Ampere

PATENTED *



* 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°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 _F	1.0					Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0 250.0					μA
* Typical reverse recovery time (NOTE 1)	t_{rr}	2.0					μs
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	μA
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**

