

Silicon Diode

GI1001

50V / 1A

DATASHEET

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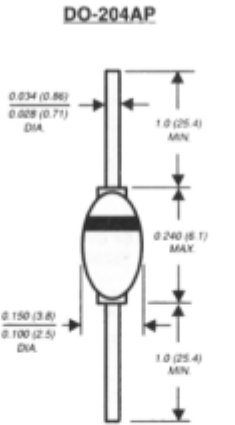
OEM – General Semiconductor

Source: General Semiconductor Databook 1998

GI1001 THRU GI1004

GLASS PASSIVATED FAST EFFICIENT RECTIFIER
 Reverse Voltage - 50 to 200 Volts Forward Current - 1.0 Ampere

PATENTED *



Dimensions in inches and (millimeters)

* Brazed lead assembly is covered by Patent No. 3,930,30

FEATURES

- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Superfast recovery time for high efficiency
- ◆ Low forward voltage, high current capability
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ Hermetically sealed package
- ◆ Low leakage current
- ◆ High surge capability
- ◆ High temperature soldering guaranteed:
350°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-204AP solid glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.02 ounce, 0.56 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GI1001	GI1002	GI1003	GI1004	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	Volts
Maximum RMS voltage	V _{RMS}	35	70	105	140	Volts
Maximum DC blocking voltage	V _{DC}	50	100	150	200	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _L =75°C	I <sub(av)< sub=""></sub(av)<>	1.0				Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T _L =75°C	I _{FSM}	30.0				Amps
Maximum instantaneous forward voltage at 1.0A	V _F	0.975				Volts
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =100°C	I _R	2.0 50.0				μA
Maximum reverse recovery time (NOTE 1)	t _{rr}	25.0				ns
Typical junction capacitance (NOTE 2)	C _J	45.0				pF
Typical thermal resistance (NOTE 3) (NOTE 4)	R _{θJA} R _{θJL}	65.0 20.0				°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175				°C

NOTES:

- (1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_T=0.25A
- (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 and mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm)
- (4) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsinks

RATINGS AND CHARACTERISTIC CURVES G11001 THRU G11004

