

Silicon Diode

1N5551

400V / 3A

DATASHEET

OEM – General Semiconductor

Source: General Semiconductor Databook 1998

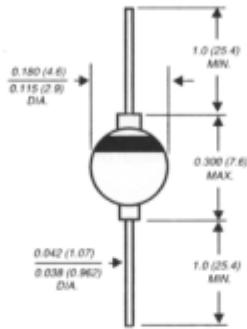
1N5550 THRU 1N5552

GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts Forward Current - 3.0 Amperes

PATENTED *

Case Style G4



Dimensions in inches and (millimeters)

* Brazed-lead assembly is covered by Patent No. 3,930,306

FEATURES

- ◆ Glass passivated cavity-free junction
- ◆ High temperature metallurgically bonded construction
- ◆ Hermetically sealed package
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ Medium switching for improved efficiency
- ◆ High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: Solid glass body
Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.037 ounce, 1.04 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	1N5550	1N5551	1N5552	UNITS
*Maximum repetitive peak reverse voltage	V _{RRM}	200	400	600	Volts
Maximum RMS voltage	V _{RMS}	140	280	420	Volts
*Maximum DC blocking voltage	V _{DC}	200	400	600	Volts
*Minimum reverse breakdown voltage at 50µA	V _(BR)	240	460	660	Volts
*Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C	I _(AV)	3.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100.0			Amps
Maximum instantaneous forward voltage at 9.0A	V _F	1.2			Volts
*Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =100°C T _A =200°C	I _R	1.0 25.0 1500.0			µA
*Maximum junction capacitance (NOTE 1)	C _J	150	120	100	pF
*Maximum reverse recovery time (NOTE 2)	t _{rr}	2.0			µs
Typical thermal resistance (NOTE 3)	R _{θJA} R _{θJL}	22.0 12.0			°C/W
*Operating and storage temperature range	T _J , T _{STG}	-65 to +200			°C

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 12.0 Volts
- (2) Reverse recovery test conditions: I_r=0.5A, I_F=1.0A, I_r=0.25A
- (3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, with both leads mounted between heat sinks.
*JEDEC registered values

RATINGS AND CHARACTERISTIC CURVES 1N5550 THRU 1N5552

