

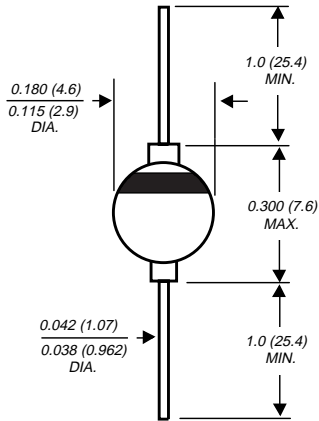
# 1N5550 THRU 1N5552

## 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 50 $\mu$ A	$V_{(BR)}$	240	460	660	Volts
*Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	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 $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ $T_A=200^\circ\text{C}$	$I_R$	1.0 25.0 1500.0			$\mu$ A
*Maximum junction capacitance (NOTE 1)	$C_J$	150	120	100	pF
*Maximum reverse recovery time (NOTE 2)	$t_{rr}$	2.0			$\mu$ s
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	22.0 12.0			$^\circ\text{C/W}$
*Operating and storage temperature range	$T_J, T_{STG}$	-65 to +200			$^\circ\text{C}$

**NOTES:**

- (1) Measured at 1.0 MHz and applied reverse voltage of 12.0 Volts
- (2) Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $t_{rr}=0.25\text{A}$
- (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

FIG. 1 - FORWARD CURRENT DERATING CURVE

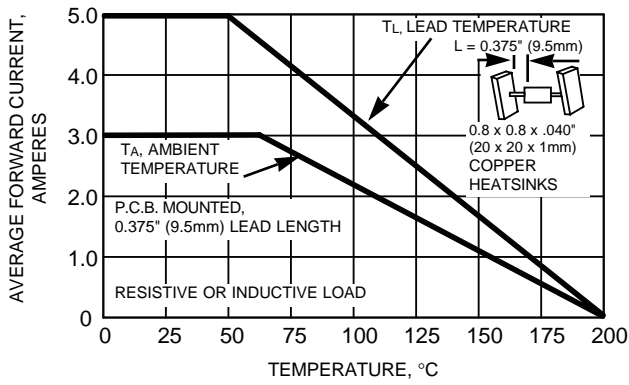


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

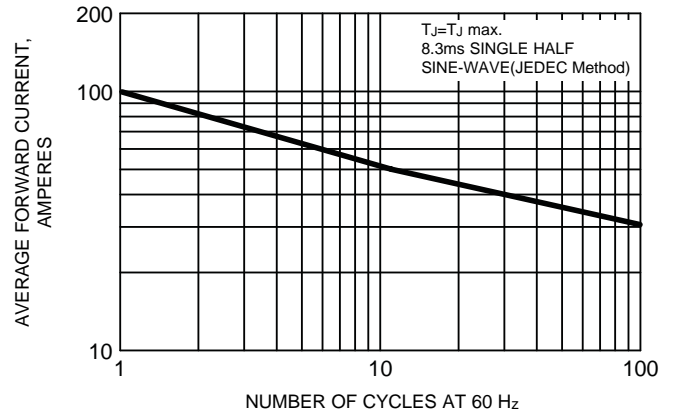


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

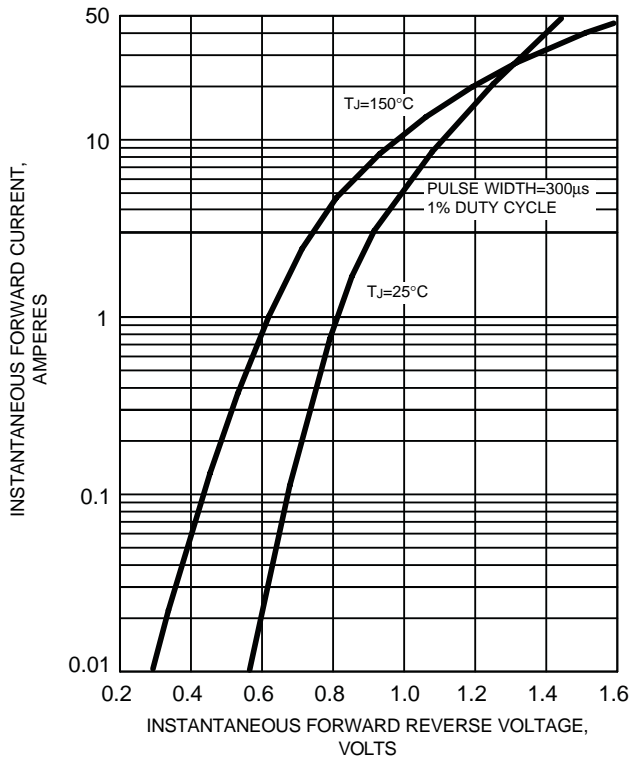


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

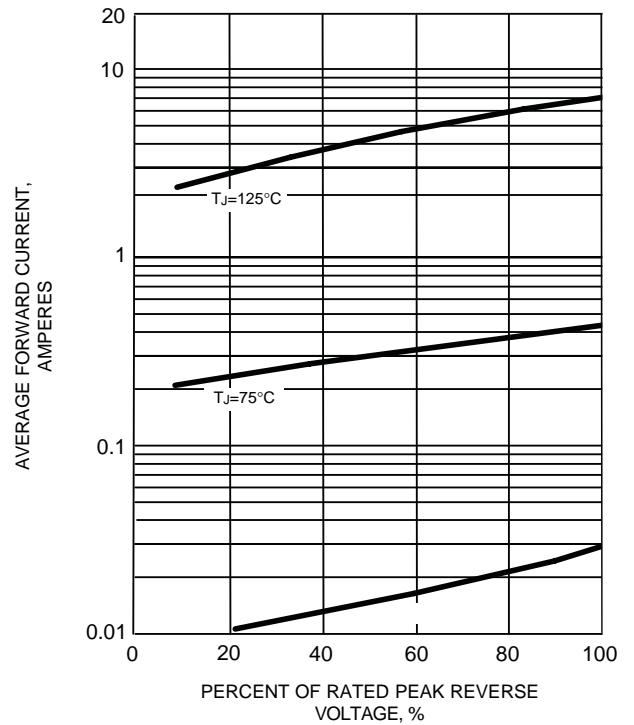


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

