

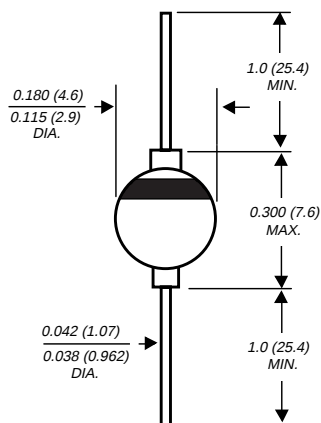
1N5550 THRU 1N5552

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 μ 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			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)	$R_{\theta JA}$ $R_{\theta JL}$	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

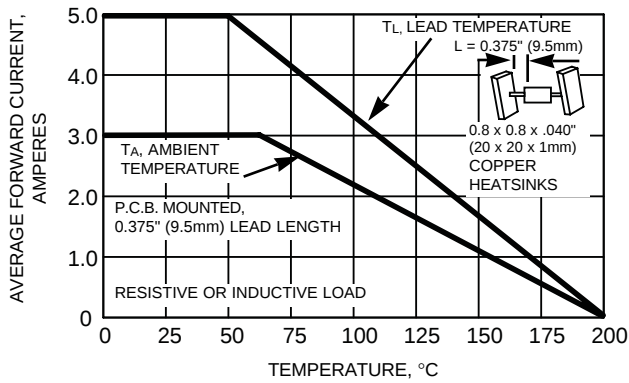


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

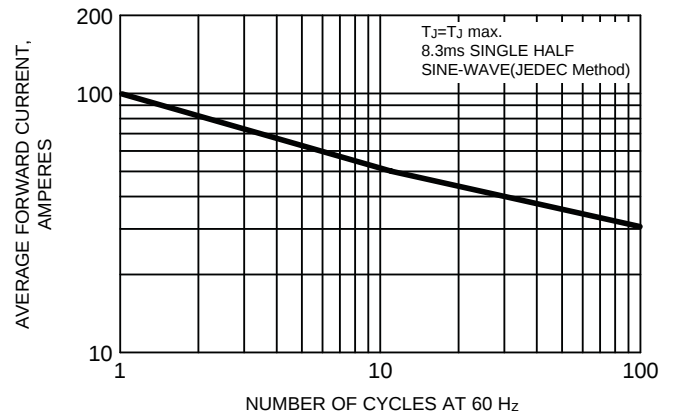


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

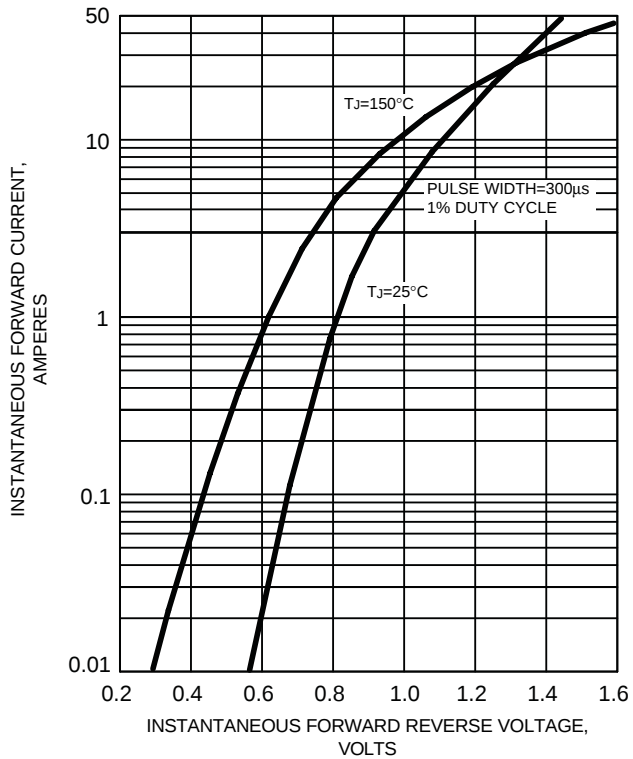


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

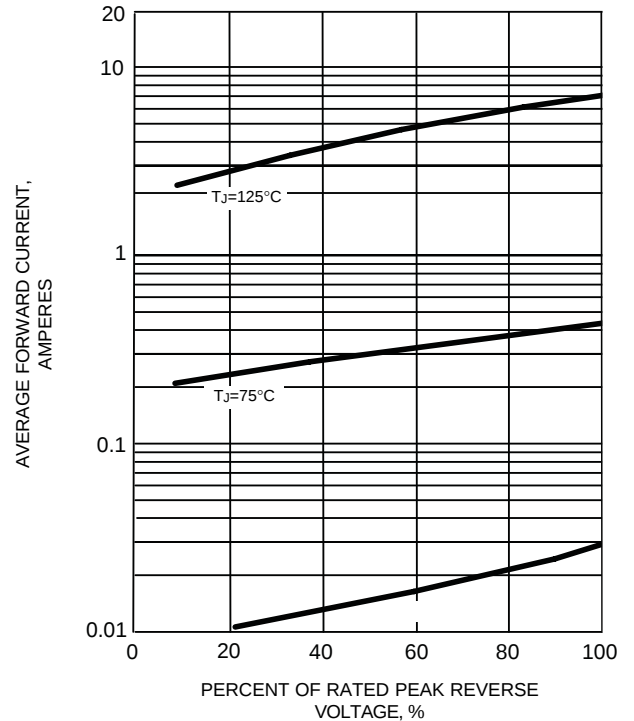


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

