

# 1N5554

## SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE: 1000V

CURRENT: 3.0A

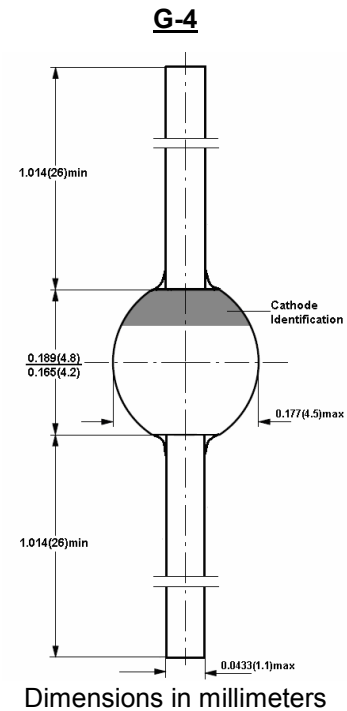


### FEATURE

High temperature metallurgically bonded construction  
Sintered glass cavity free junction  
Capability of meeting environmental standard of MIL-S-19500  
High temperature soldering guaranteed  
350°C /10sec/0.375"lead length at 5 lbs tension  
Operate at  $T_a = 55^\circ\text{C}$  with no thermal run away  
Typical  $I_r < 0.1\mu\text{A}$

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

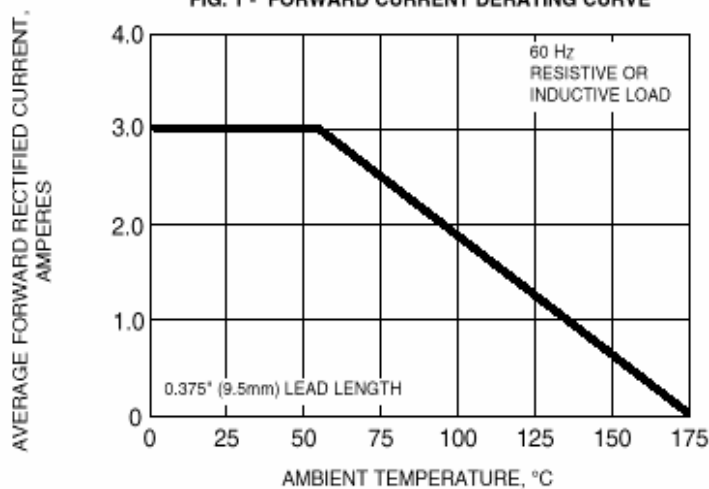
	SYMBOL	1N5554	units
Maximum Recurrent Peak Reverse Voltage	$V_{rrm}$	1000	V
Maximum RMS Voltage	$V_{rms}$	700	V
Maximum DC blocking Voltage	$V_{dc}$	1000	V
Maximum Average Forward Rectified Current 3/8"lead length at $T_a = 55^\circ\text{C}$	$I_{f(av)}$	3.0	A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	$I_{fsm}$	80.0	A
Maximum Instantaneous Forward Voltage at 9.0A	$V_f$	1.2	V
Maximum Full Load Reverse Current Full Cycle Average at 55°C	$I_r(av)$	100.0	$\mu\text{A}$
Maximum DC Reverse Current at rated DC blocking voltage $T_a = 25^\circ\text{C}$	$I_r$	1.0	$\mu\text{A}$
$T_a = 150^\circ\text{C}$		100.0	
Typical Reverse Recovery Time (Note 1)	$T_{rr}$	2.0	$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_j$	40.0	pF
Typical Thermal Resistance (Note 3)	$R_{th(ja)}$	20.0	$^\circ\text{C}/\text{W}$
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-65 to +175	$^\circ\text{C}$

Note:

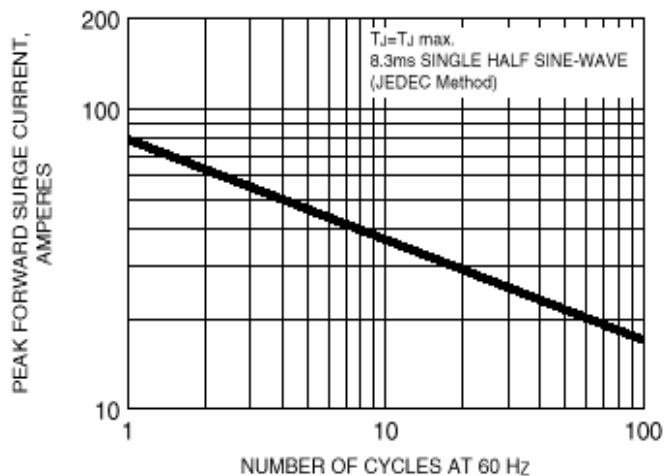
- Reverse Recovery Condition  $I_f = 0.5\text{A}$ ,  $I_r = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

# RATINGS AND CHARACTERISTIC CURVES 1N5554

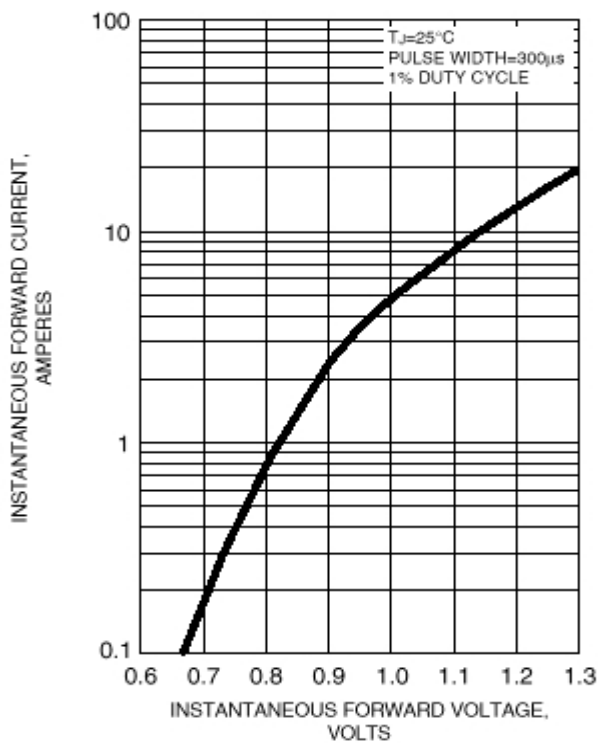
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



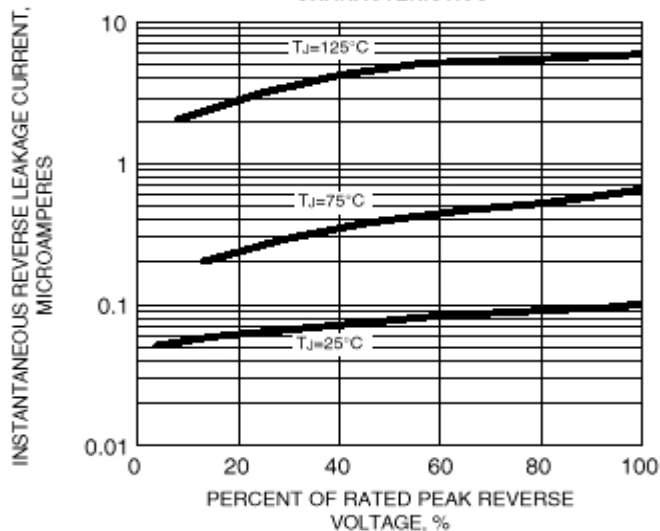
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

