



Sylvania  
**TYPE 6J7**  
**TRIPLE GRID**  
**AMPLIFIER AND**  
**DETECTOR**

### CHARACTERISTICS

Heater Voltage AC or DC . . . . .	6.3 Volts
Heater Current . . . . .	0.3 Ampere

#### Direct Interelectrode Capacitances:

Grid to Plate . . . . .	0.005 $\mu\text{f}$ Max.
Input . . . . .	7.0 $\mu\text{f}$
Output . . . . .	12.0 $\mu\text{f}$
Maximum Over-all Length . . . . .	3 $\frac{1}{8}$ "
Maximum Diameter . . . . .	1 $\frac{1}{16}$ "
Cap . . . . .	Miniature
Base—Small Octal 7-Pin . . . . .	7-R

#### Operating Conditions and Characteristics:

Heater Voltage . . . . .	6.3	6.3 Volts
Plate Voltage . . . . .	100	250 Volts Max.
Grid Voltage . . . . .	-3	-3 Volts Min.
Screen Voltage . . . . .	100	100* Volts
Suppressor . . . . .	Connected to cathode at socket	
Plate Current . . . . .	2.0	2.0 Ma.
Screen Current . . . . .	0.5	0.5 Ma.
Plate Resistance . . . . .	1.0	1.5 Megohms Min.
Mutual Conductance . . . . .	1185	1225 $\mu\text{mhos}$
Amplification Factor . . . . .	1185	1500 Min.
Grid Voltage for Cathode Current Cut-off . . . . .	-7	-7 Volts (approx.)

#### Operating as Biased Detector:

##### DETECTOR

Heater Voltage . . . . .	6.3	6.3	6.3 Volts
Plate Voltage . . . . .	100	250	250 Volts Max.
Grid Voltage . . . . .	-2	-2	-4.3 Volts
Screen Voltage . . . . .	36	50	100 Volts Max.
Suppressor . . . . .	Connected to cathode at socket		
Plate Load:	250,000 ohms or a 500 henry choke shunted by 0.25 megohm for resistance load; the plate voltage will be the plate supply voltage minus the voltage drop in the load as determined by the specified plate current.		

Plate Current: Adjust to 0.1 milliampere (approx.) with no a-c input signal.

\*Maximum Screen Volts = 125.

### CIRCUIT APPLICATION

Sylvania 6J7 is a triple grid detector and amplifier metal tube. The plate current cut-off of this tube is extremely sharp making it ideally suited for detector service.

The uses for Type 6J7 are similar to those outlined for Type 77. Very few differences appear in the electrical characteristics of Type 6J7 when compared with the 77 and the same general tube performance may be expected.