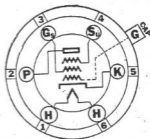


Sylvania
TYPE 58
RF PENTODE



CHARACTERISTICS

Heater Voltage AC or DC	2.5 Volts
Heater Current	1.0 Ampere

Direct Interelectrode Capacitances:

Grid to Plate (with tube shield)	0.010 $\mu\mu\text{f}$ Max.
Input	4.7 $\mu\mu\text{f}$
Output	6.5 $\mu\mu\text{f}$
Over-all Length	4 $\frac{11}{16}$ "
Maximum Diameter	1 $\frac{3}{16}$ "
Bulb	ST-12
Cap	Small Metal
Base—Small 6-Pin	6-F

Operating Conditions and Characteristics:

AMPLIFIER (CLASS A)

Heater Voltage	2.5	2.5 Volts
Plate Voltage	100	250 Volts Max.
Grid Voltage	-3	-3 Volts Min.
Screen Voltage	100	100 Volts Max.
Suppressor	Tie to Cathode	
Plate Current	8.0	8.2 Ma.
Screen Current	2.2	2.0 Ma.
Plate Resistance	0.25	0.8 Megohm
Mutual Conductance	1500	1600 μmhos
Mutual Conductance at -40 volts bias	10	10 μmhos
Amplification Factor	375	1280

Operating Conditions with Variable Bias:

FIRST DETECTOR IN SUPERHETERODYNE CIRCUIT

Heater Voltage	2.5	2.5 Volts
Plate Voltage	100	250 Volts Max.
Grid Voltage	-10	-10 Volts Min.
Screen Voltage	100	100 Volts Max.
Suppressor	Tie to Cathode	

(With a 9 volt oscillator peak swing)

NOTE: With an oscillator peak swing 1 volt less than the grid bias, these values are not critical and may be chosen to meet receiver design requirements.

CIRCUIT APPLICATION

Sylvania 58 is a remote cut-off tube otherwise similar to the 57. It is designed for r-f and i-f amplification, or for use as a first detector in a-c operated superheterodyne circuits. In the latter service translation gain is lower than that obtained from Type 57, but a-v-c voltage may be applied to the control grid to secure increased range of control. Mutual conductance, high plate resistance, and low output capacity are features of the design of this tube. Except for heater rating this tube is identical with Type 6D6 of the 6.3 volt group. More complete notes on the use of the 58 will be found under **Circuit Application** for Type 6D6.