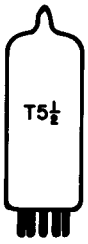
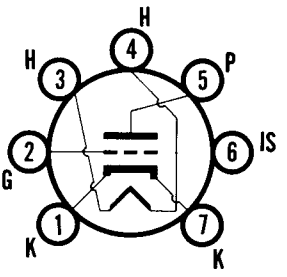


SYLVANIA TYPES 6ES5 3ES5 2ES5



VHF TRIODE

7FP

MECHANICAL DATA

Bulb	T-5½
Base	E8-1, Miniature Button 7-Pin
Outline	5-2
Basing	7FP
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	2ES5	3ES5	6ES5	
Heater Voltage	2.35	3.0	6.3	Volts
Heater Current	600	450	200	Ma
Heater Warm-up Time[1]	11	11		Seconds
Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total D C and Peak	200	200	200	Volts
Heater Positive with Respect to Cathode				
D C	100	100	100	Volts
Total D C and Peak	200	200	200	Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)

Grid to Plate	0.36 $\mu\mu$f
Input: g to (h+k+I.S.)	3.0 $\mu\mu$f
Output: p to (h+k+I.S.)	4.0 $\mu\mu$f

RATINGS (Design Center Values)

Plate Voltage	250 Volts Max.
Plate Dissipation	2.5 Watts Max.
D C Cathode Current	25 Ma Max.
Grid Circuit Resistance	0.5 Megohms Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	200 Volts
Grid Voltage	−1.0 Volts
Plate Current	15 Ma
Transconductance	9500 μmhos
Amplification Factor	70
Plate Resistance (approx.)	7400 Ohms
Ec for Ib = 100 μa (approx.)	−9 Volts

NOTE:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.

APPLICATION

The Sylvania Types 2ES5, 3ES5 and 6ES5 are semi-remote cutoff triodes designed for use as VHF RF amplifiers. Features of the design include: A partial shield between the grid and plate which lowers the capacitance between these two elements and promotes ease of neutralization; low input capacitance; and higher input impedance by virtue of dual cathode leads.