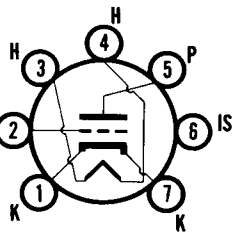
SYLVANIA TYPES 6GK5 3GK5 2GK5



7FP

VHF HI GM TRIODE

The Sylvania Types 2GK5, 3GK5 and 6GK5 measured under grounded plate conditions yield an Input Resistance of 275 Ohms and an Input Capacitance of 11.2 $\mu\mu$f at 200 Mc. Noise measurements yield a Noise Figure of 4.7 db at 200 Mc in an optimized triode RF amplifier stage, noise matched.

MECHANICAL DATA

Bulb	T-5½
Base	E7-1, Miniature Button 7-Pin
Outline	5-2
Basing	7FP
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Average Characteristics Heater Operation	2GK5 Series	3GK5 Series	6GK5 Parallel	
Heater Voltage	2.3	2.8	6.3[1]	Volts
Heater Current	600[1]	450[1]	180	Ma
Heater Warm-up Time[2]	11	11	...	Seconds
Ratings (Design Maximum Values)	**Min-Max**	**Min-Max**	**Min-Max**	
Heater Voltage[3]	.....	.....	5.7 - 6.9	Volts
Heater Current[3]	560-640	420-480	.. ..	Ma
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total D C and Peak	100	100	100	Volts
Heater Positive with Respect to Cathode				
Total D C and Peak	100	100	100	Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)

Grid to Plate	0.52 $\mu\mu$f
Input: g to (h+k+I.S.+E.S.)	5.0 $\mu\mu$f
Output: p to (h+k+I.S.+E.S.)	3.5 $\mu\mu$f
Heater to Cathode	2.5 $\mu\mu$f

RATINGS (Design Maximum Values)

Plate Voltage	200 Volts Max.
Plate Dissipation	2.5 Watts Max.
D C Cathode Current	22 Ma Max.
Negative Grid Voltage	50 Volts Max.
Grid Circuit Resistance (Self Bias)	1.0 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	135 Volts
Grid Voltage	−1.0 Volts
Plate Current	11.5 Ma
Transconductance	15,000 μmhos
Amplification Factor	78
Plate Resistance (approx.)	5400 Ohms
Ec for Gm = 150 μmhos (approx.)	−4.2 Volts
Ec for Gm = 1500 μmhos (approx.)	−2.5 Volts
Hot Input Resistance (200 Mc)[4]	275 Ohms
Hot Input Capacitance (200 Mc)[4]	11.2 $\mu\mu$f
Noise Figure (200 Mc)[5]	4.7 db

NOTES:

1. For series/parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater current/voltage.
2. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage 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 the rated heater voltage divided by the rated heater current.
3. Heater voltage supply variations shall be restricted to maintain heater voltage/current within the specified values.
4. Measured under grounded plate conditions.
5. Optimized neutralized triode RF amplifier stage, noise matched.

SYLVANIA TYPES 6GK5 (Cont'd)
3GK5
2GK5

APPLICATION

The Sylvania Types 2GK5, 3GK5 and 6GK5 are frame grid gain controlled triodes designed for use as VHF RF amplifiers at a B+ of 135 volts. 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.