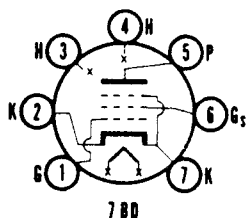


**SYLVANIA TYPE 6BC5
3BC5
4BC5**

SHARP CUTOFF R F PENTODE



MECHANICAL DATA

Bulb.....	T-5 1/2, Outline 5-2
Base.....	Miniature Button 7-Pin
Basing.....	7BD
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS	3BC5	4BC5	6BC5
Heater Voltage.....	3.15	4.2	6.3 Volts
Heater Current.....	600	450	300 Ma
Heater Warm-up Time.....	11	11	Seconds
Maximum Heater-Cathode Voltage			
Total DC and Peak.....			200 Volts
DC Heater Positive with respect to Cathode.....			100 Volts

6BC5, 3BC5, 4BC5 (Cont'd)

DIRECT INTERELECTRODE CAPACITANCES

Pentode Connected	Shielded ¹	Unshielded
Grid to Plate.....	0.020	0.030 $\mu\mu\text{f}$ Max
Input.....	6.6	6.5 $\mu\mu\text{f}$
Output.....	2.6	1.8 $\mu\mu\text{f}$
Triode Connected (Grid No. 2 Tied to Plate)		
Grid to Plate.....	2.5	2.5 $\mu\mu\text{f}$
Input.....	4.0	3.9 $\mu\mu\text{f}$
Output.....	4.3	3.0 $\mu\mu\text{f}$

MAXIMUM RATINGS (Design Center Values)

	Triode Connected ²	Pentode Connected
Plate Voltage.....	300	300 Volts
Plate Dissipation.....	2.5 ³	2.0 Watts
Grid No. 2 Voltage.....	Plate	See Rating Chart For Type 6AM8
Grid No. 2 Supply Voltage.....	Plate	300 Volts
Grid No. 2 Dissipation.....		0.5 Watts
Positive Grid No. 1 Voltage.....	0	0 Volts

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier—Pentode Connected

Plate Voltage.....	100	125	250 Volts
Grid No. 2 Voltage.....	100	125	150 Volts
Cathode Resistor.....	180	100	180 Ohms
Transconductance.....	4900	6100	5700 μmhos
Plate Resistance (approx.).....	0.6	0.5	0.8 Megohm
Plate Current.....	4.7	8.0	7.5 Ma
Grid No. 2 Current.....	1.4	2.4	2.1 Ma
Grid No. 1 Voltage for $I_b = 10 \mu\text{a}$	-5	-6	-8 Volts

Triode Connected²

Plate Voltage.....	250	180 Volts
Cathode Resistor.....	820	330 Ohms
Transconductance.....	4400	6000 μmhos
Plate Resistance (approx.).....	9000	6000 Ohms
Amplification Factor.....	40	42
Plate Current.....	6.0	8.0 Ma

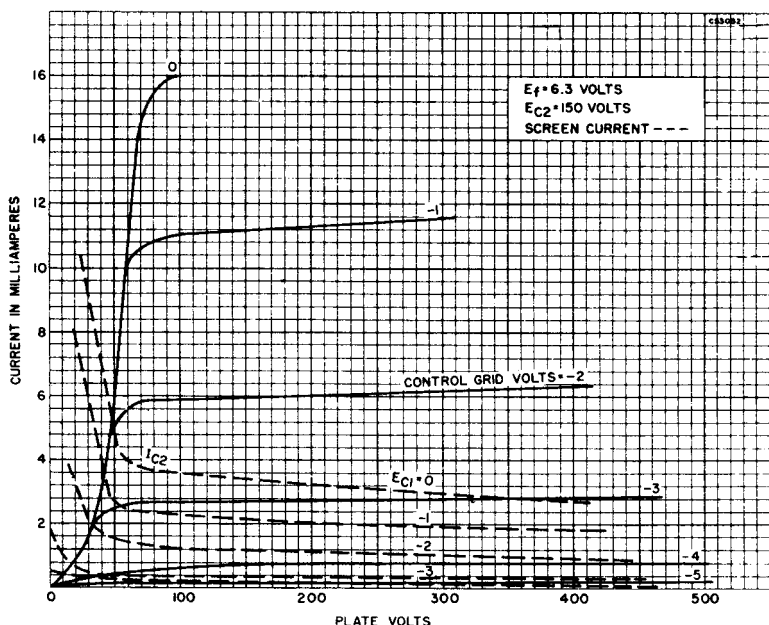
NOTES:

1. External shield No. 316 connected to pin 7.
2. Screen grid tied to plate.
3. Total current flowing to plate and screen.

APPLICATION

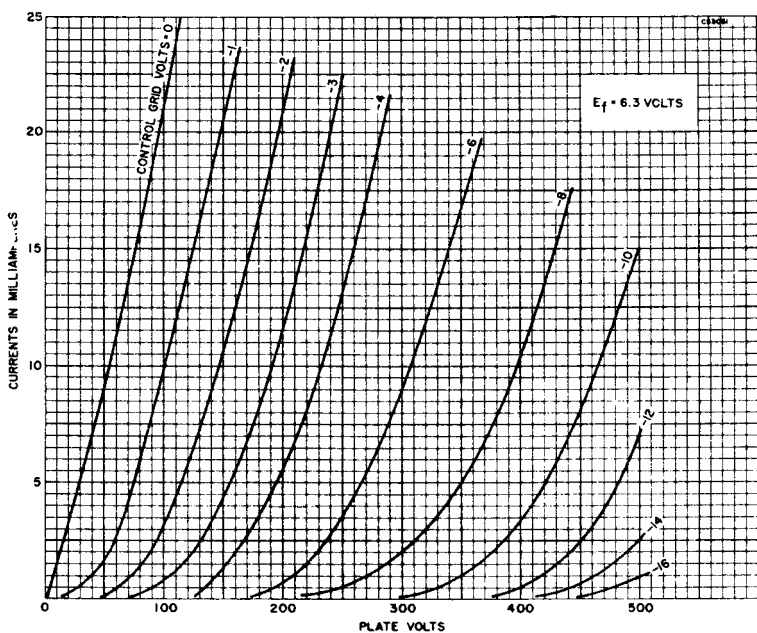
Sylvania Types 3BC5, 4BC5 and 6BC5 are sharp cutoff rf pentode amplifiers of miniature construction. They may be used at frequencies up to 400 mc and are particularly useful in television receivers where a slightly higher gain than that obtained with the similar Type 6AG5 is desired.

AVERAGE PLATE CHARACTERISTICS



6BC5, 3BC5, 4BC5 (Cont'd)

AVERAGE PLATE CHARACTERISTICS TRIODE CONNECTED



AVERAGE TRANSFER CHARACTERISTICS

