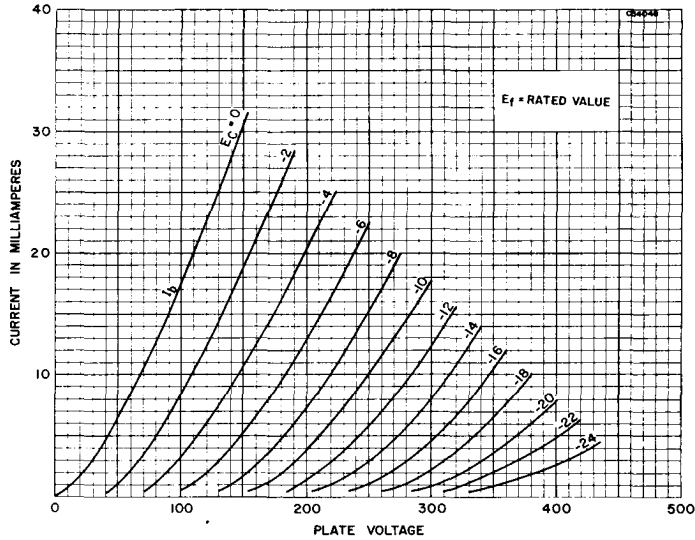


AVERAGE PLATE CHARACTERISTICS
(Triode Section)

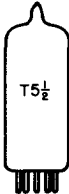
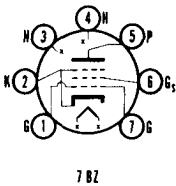


Color Television Type
**AUDIO POWER AMPLIFIER
or VERTICAL DEFLECTION AMP.**

6AQ5A
5AQ5, 12AQ5, 19AQ5

Beam Power Pentode

- Construction Miniature T-5½
- Base Button 7 Pin, E7-1
- Basing 7BZ
- Outline 5-3
- Maximum Diameter 0.750 In.
- Maximum Seated Height 2.375 In.
- Maximum Overall Height 2.625 In.



ELECTRICAL DATA
HEATER OPERATION

	19AQ5	12AQ5	5AQ5	6AQ5A
Heater Voltage.....	18.9	12.6	4.7	6.3 Volts
Heater Current	150	225	600	450 Ma
Heater Warm-up Time	—	—	11	11 Seconds
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				200 Volts
Total DC and Peak.....				
Heater Positive with Respect to Cathode				
DC				100 Volts
Total DC and Peak.....				200 Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate	0.4 Pf
Input: g1 to (h + k + g2 + g3)	8.0 Pf
Output: p to (h + k + g2 + g3)	8.5 Pf

RATINGS (Design Maximum Rating System)

Class A1 Amplifier

Plate Voltage (Max.)	275 Volts
Grid No. 2 Voltage (Max.)	275 Volts
Plate Dissipation (Max.)	12 Watts
Grid No. 2 Dissipation (Max.)	2 Watts
Grid No. 1 Circuit Resistance	
Fixed Bias (Max.)	0.1 Megohm
Cathode Bias (Max.)	0.5 Megohm
Bulb Temperature (At Any Point) (Max.)	250 °C

Vertical Deflection Amplifier⁽¹⁾—Triode Connected⁽²⁾

Plate Voltage (Max.)	275 Volts
Peak Positive Plate Voltage (Abs. Max.)	1100 Volts
Plate Dissipation (Max.) ⁽³⁾	10 Watts
Peak Negative Grid No. 1 Voltage (Max.)	275 Volts
Average Cathode Current (Max.)	40 Ma
Peak Cathode Current (Max.)	115 Ma
Grid No. 1 Circuit Resistance	
Cathode Bias (Max.)	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Conn.	Pentode Conn.	
Class A1 Amplifier			
Plate Voltage	250	180	250 Volts
Grid No. 2 Voltage	—	180	250 Volts
Grid No. 1 Voltage	-12.5	-8.5	-12.5 Volts
Peak AF Grid No. 1 Voltage	—	8.5	12.5 Volts
Zero-Signal Plate Current	49.5	29	45 Ma
Maximum Signal Plate Current	—	30	47 Ma
Zero-Signal Grid No. 2 Current	—	3	4.5 Ma
Maximum Signal Grid No. 2 Current	—	4	7.0 Ma
Plate Resistance (Approx.)	1970	58,000	52,000 Ohms
Transconductance	4800	3700	4100 μ mhos
Load Resistance	—	5500	5000 Ohms
Maximum Signal Power Output	—	2.0	4.5 Watts
Total Harmonic Distortion (Approx.)	—	8	8 Percent
Ec1 for Ib = 0.5 Ma (Approx.)	-37	—	— Volts

NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) Grid No. 2 connected to plate.
- (3) In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.

6AQ6**AF AMPLIFIER AND DETECTOR****Double Diode and High Mu Triode**

Construction	Miniature T-5½
Base	Button 7 Pin, E7-1
Basing	.7BT
Outline	5-2
Maximum Diameter	0.750 In.
Maximum Seated Height	1.875 In.
Maximum Overall Height	2.125 In.

ELECTRICAL DATA**HEATER OPERATION**

Heater Voltage	6.3 Volts
Heater Current	150 Ma
Maximum Heater Cathode Voltage	90 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)⁽¹⁾

Grid to Plate	1.8 Pf
Input	1.7 Pf
Output	1.5 Pf

RATINGS (Design Center Rating System)**Triode**

Plate Voltage (Max.)	300 Volts
Positive Grid No. 1 Voltage (Max.)	0 Volt

Diode

Diode Operating Current Per Plate (Max.)	0.9 Ma
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CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

Plate Voltage	100	250 Volts
Grid No. 1 Voltage ⁽²⁾	-1	-3 Volts
Plate Resistance (Approx.)	61,000	58,000 Ohms
Transconductance	1150	1200 μ mhos
Plate Current	0.8	1.0 Ma

NOTES:

- (1) Shield No. 316 connected to cathode.
- (2) Diode biasing of the triode section is not recommended.

