

Direct Interelectrode Capacitances (Approx.):

Grid No.1 to plate	0.85	pF
Grid No.1 to cathode and grid No.3, grid No.2, base sleeve and heater	14.0	pF
Plate to cathode & grid No.3, grid No.2, base sleeve, and heater	12.0	pF

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.05	megohm
For cathode-bias operation	0.25	megohm

Class A₁ AF Power Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	600	volts
Grid-No.2 (Screen-Grid) Voltage	400	volts
Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	300	volts
Positive-bias value	0	volt
Cathode Current	175	mA
Grid-No.2 Input	6	watts
Plate Dissipation	35	watts
Bulb Temperature (At hottest point on bulb surface)	250	°C

TYPICAL OPERATION AND CHARACTERISTICS

Plate Voltage	250	400	volts
Grid-No.2 Voltage	250	225	volts
Grid-No.1 Voltage	-14	-16.5	volts
Peak AF Grid-No.1 Voltage	14	16.5	volts
Zero-Signal Plate Current	140	87	mA
Max-Signal Plate Current	150	105	mA
Zero-Signal Grid-No.2 Current	12	4	mA
Max-Signal Grid-No.2 Current	28	18	mA
Plate Resistance (Approx.)	12000	27000	ohms
Transconductance	11000	9000	μmhos
Load Resistance	1500	3000	ohms
Total Harmonic Distortion	7	13.5	%
Max-Signal Power Output	12.5	20	watts

Class A₁ Push-Pull AF Power Amplifier

MAXIMUM RATINGS (Design-Center Values)

Same as for Class A₁ AF POWER AMPLIFIER

TYPICAL OPERATION AND CHARACTERISTICS

Values are for 2 tubes

	Fixed Bias		Cathode Bias	
Plate Supply Voltage	400	600	400	volts
Grid-No.2 Supply Voltage	275	300	300	volts
Grid-No.1 Voltage	-23	-31	—	volts
Cathode Resistor	—	—	140	ohms
Peak AF Grid-No.1-to-Grid-No.1 Voltage	46	62	53	volts
Zero-Signal Plate Current	180	115	166	mA
Max-Signal Plate Current	270	273	190	mA
Zero-Signal Grid-No.2 Current	9	4	7.5	mA
Max-Signal Grid-No.2 Current	44	41	39	mA
Effective Load Resistance (Plate to plate)	3500	5000	4500	ohms
Total Harmonic Distortion	3	2.5	4	%
Max-Signal Power Output	55	100	41	watts

* The dc component must not exceed 100 volts.

6626/0A2WA

Refer to chart at end of section.

6660/6BA6

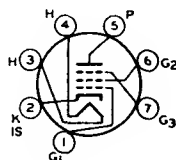
Refer to chart at end of section.

6661/6BH6

INDUSTRIAL
TYPE

SHARP-CUTOFF PENTODE

Miniature type used as an rf amplifier particularly in mobile equipment where low heater-current drain is important. It is particularly useful in high-frequency, wide-band applications. Outlines section, 5C; requires miniature 7-contact socket.



7CM

Heater Voltage (ac/dc)	6.3 $\pm$ 20%	volts
Heater Current	0.15	ampere
Peak Heater-Cathode Voltage	$\pm$ 100 max.	volts
Direct Interelectrode Capacitances:		
Grid No.1 to Plate	0.0035 max.	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5.4	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	4.4	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	330	volts
Grid-No.2 (Screen-Grid) Voltage	See curve page 300	
Grid-No.2 Supply Voltage	330	volts
Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	55	volts
Positive-bias value	0	volt
Plate Dissipation	3.3	watts
Grid-No.2 Input:		
For Grid-No.2 voltages up to 165 volts	0.55	watt
For Grid-No.2 voltages between 165 and 300 volts	See curve page 300	

CHARACTERISTICS

Plate Voltage	250	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Voltage	150	volts
Cathode Resistor	100	ohms
Plate Resistance (Approx.)	1.4	megohms
Transconductance	4600	μ mhos
Plate Current	7.4	mA
Grid-No.2 Current	2.6	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—7.7	volts

TRANSCONDUCTANCE AT REDUCED HEATER VOLTAGE

Average Value	3600	μ mhos
With heater volts = 5, plate supply volts = 250, grid No.3 connected to cathode at socket, grid-No.2 supply volts = 150, and cathode resistor (ohms) bypassed = 100.		

Refer to chart at end of section.

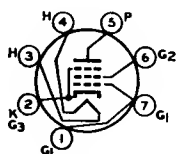
6662/6BJ6

Refer to chart at end of section.

6663/6AL5

Refer to chart at end of section.

6664/6AB4



7BZ

BEAM POWER TUBE

Miniature type used as output amplifier primarily in mobile communications equipment. Outlines section, 5D; requires miniature 7-contact socket.

**6669/
6AQ5A**
INDUSTRIAL
TYPE

Heater Voltage (ac/dc)	6.3 $\pm$ 20%	volts
Heater Current	0.45	ampere
Heater Warm-up Time (Average)	11	seconds
Heater-Cathode Voltage:		
Peak value	$\pm$ 100 max.	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.4	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	8	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	8.5	pF