

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	300	volts
Grid Voltage, Positive-bias value	0	volts
Plate Dissipation	1.5	watts

CHARACTERISTICS

Plate Voltage	100	volts
Cathode-Bias Resistor	50†	ohms
Amplification Factor	38	
Plate Resistance (Approx.)	7100	ohms
Transconductance	5300	μmhos
Plate Current	8.5	mA

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:		
For fixed-bias operation	Not	recommended
For cathode-bias operation	0.5	megohm

† Value is for both units operating at the specified conditions.

RF Power Amplifier and Oscillator—Class C Telephony

Key-down conditions per tube without modulation

MAXIMUM RATINGS (Design-Center Values, Each Unit)

Plate Voltage	300	volts
Grid Voltage:		
Negative-bias value	40	volts
Positive-bias value	0	volts
Plate Current	15	mA
Grid Current	8	mA
Plate Input	4.5	watts
Plate Dissipation	1.5	watts

TYPICAL PUSH-PULL OPERATION (Both Units)

Plate Voltage	150	volts
Grid Voltage*	-10	volts
Plate Current	30	mA
Grid Current (Approx.)	16	mA
Driving Power (Approx.)	0.35	watt
Power Output (Approx.)	3.5	watts

* Obtained by grid resistor (625 ohms), cathode-bias resistor (220 ohms), or fixed supply.

6J7

6J7G

6J7GT

Refer to chart at end of section.

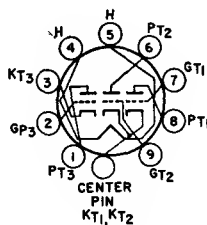
6J8G

Refer to chart at end of section.

6J9

HIGH-MU TRIPLE TRIODE

Miniature type used as rf-amplifier, oscillator, and mixer into the vhf range. Outlines section, 6B, except center pin is added to base; requires miniature 10-contact socket.



10G

Heater Arrangement	Series	Parallel	
Heater Voltage (ac/dc)	6.3	6.3	volts
Heater Current	0.45	0.45	mA
Heater Warm-up Time (Average)	11	—	seconds
Peak Heater-Cathode Voltage	±100 max	±100 max	volts

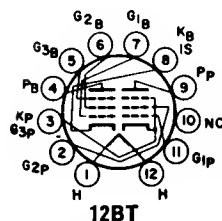
Class A₁ Amplifier (Each Unit Unless Otherwise Specified)

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	330	volts
Grid Voltage:		
Negative-bias value	50	volts
Positive-bias value	0	volts
Plate Dissipation	2	watts
Total Plate Dissipation (All plates)	5	watts

CHARACTERISTICS

Plate Voltage	125	volts
Grid Voltage	-1	volt
Amplification Factor	57	
Plate Resistance	11000	ohms
Transconductance	5200	μ mhos
Plate Current	6	mA
Grid Voltage (Approx.) for plate current of 20 μ A	-5.4	volts



**PENTODE—
BEAM POWER TUBE**

6J10

Duodecar type used in FM and color and black-and-white television receivers. The pentode unit is used as a gated-beam discriminator and the beam power unit is used in audio power-output stages in FM and television limiter and discriminator applications. Outlines section, 8B; requires duodecar 12-contact socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.95	ampere
Heater-Cathode Voltage:		
Peak value	± 200 max	volts
Average value	100 max	volts

Pentode Unit as Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	275	volts
Grid-No.2 (Screen-Grid) Voltage	275	volts
Plate Dissipation	10	watts
Grid-No.2 Input	2	watts

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	250	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage	-8	volts
Peak AF Grid-No.1 Voltage	8	volts
Plate Resistance (Approx.)	0.1	megohm
Transconductance	6500	μ mhos
Zero-Signal Plate Current	35	mA
Maximum-Signal Plate Current	39	mA
Zero-Signal Grid-No.2 Current	2.5	mA
Maximum-Signal Grid-No.2 Current	7	mA
Load Resistance	5000	ohms
Total Harmonic Distortion (Approx.)	10	per cent
Maximum-Signal Power Output	4.2	watts

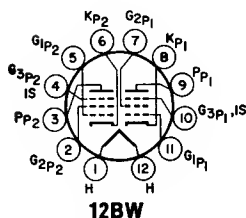
MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.25	megohm
For cathode-bias operation	0.5	megohm

Beam Power Unit as Gated-Beam Discriminator

MAXIMUM RATINGS (Design-Maximum Values)

Plate Supply Voltage	330	volts
Grid-No.2 (Accelerator-Grid) Voltage	110	volts
Peak Positive Grid-No.1 Voltage	60	volts
Average Cathode Current	13	mA



**SHARP-CUTOFF
TWIN PENTODE**

6J11

Duodecar type used as if-amplifier tube in television receivers. Outlines section, 8A; requires duodecar 12-contact socket.