

6V6, 6V6GT, 6V6GTA, 5V6GT, 12V6GT (Cont'd)

ELECTRICAL DATA

HEATER CHARACTERISTICS

	5V6GT	6V6GT	6V6GTA	12V6GT	
Heater Voltage.....	4.7	6.3	6.3	12.6	Volts
Heater Current.....	600	450	450	225	Ma
Heater Warm-up Time.....	11		11		Seconds
Maximum Heater-Cathode Voltage Total D C and Peak.....				200	Volts
D C, Heater Positive with Respect to Cathode.....				100	Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid to Plate.....	0.7	μmf
Input.....	9.0	μmf
Output.....	7.5	μmf

MAXIMUM RATINGS (Design Center Values—Except as Noted)

Class A₁ Amplifier

Plate Voltage.....	315	Volts
Grid No. 2 Voltage.....	285	Volts
Plate Dissipation.....	12	Watts
Grid No. 2 Dissipation.....	2	Watts
Grid No. 1 Circuit Resistance Fixed Bias.....	0.1	Megohm
Cathode Bias.....	0.5	Megohm

Vertical Deflection Amplifier—Triode Connected¹

Plate Voltage.....	315	Volts
Peak Positive Plate Voltage (Abs. Max.).....	1200	Volts
Plate Dissipation ²	9	Watts
Peak Negative Grid Voltage.....	250	Volts
Average Cathode Current.....	35	Ma
Peak Cathode Current.....	105	Ma
Grid Circuit Resistance Cathode Bias.....	2.2	Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier (Single Tube)

Plate Voltage.....	180	250	315	Volts
Grid No. 2 Voltage.....	180	250	225	Volts
Grid No. 1 Voltage.....	-8.5	-12.5	-13.0	Volts
Peak A F Grid No. 1 Voltage.....	8.5	12.5	13.0	Volts
Plate Current (Zero Signal).....	29	45	34	Ma
Plate Current (Maximum Signal).....	30	47	35	Ma
Grid No. 2 Current (Zero Signal).....	3	4.5	2.2	Ma
Grid No. 2 Current (Maximum Signal).....	4	7.0	6	Ma
Plate Resistance (approx.).....	50000	50000	80000	Ohms
Transconductance.....	3700	4100	3750	μmhos
Load Resistance.....	5500	5000	8500	Ohms
Maximum Signal Power Output.....	2.0	4.5	5.5	Watts
Total Harmonic Distortion (approx.).....	8	8	12	Percent

Class AB₁ Amplifier (Two Tubes in Push-Pull)

Plate Voltage.....	250	285	Volts
Grid No. 2 Voltage.....	250	285	Volts
Grid No. 1 Voltage.....	-15	-19	Volts
Peak A F Grid to Grid Voltage.....	30	38	Volts
Plate Current (Zero Signal).....	70	70	Ma
Plate Current (Maximum Signal).....	79	92	Ma
Grid No. 2 Current (Zero Signal).....	5.0	4.0	Ma
Grid No. 2 Current (Maximum Signal).....	13	13.5	Ma
Effective Load Resistance (Plate-to-Plate).....	10000	8000	Ohms
Total Harmonic Distortion.....	5.0	3.5	Percent
Maximum Signal Power Output.....	10	14	Watts

Triode Connected Characteristics

Plate Voltage.....	250	Volts
Grid Voltage.....	-12.5	Volts
Plate Current.....	49.5	Ma
Transconductance.....	5000	μmhos
Amplification Factor.....	9.8	
Plate Resistance.....	1960	Ohms
Grid Voltage for I _b = 0.5 Ma (approx.).....	-36	Volts

NOTES:

- For operation in a 525-line, 30 frame system, the duty cycle of the voltage pulse must not exceed 15% of one scanning cycle.
- 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.

APPLICATION

The Types 5V6GT, 6V6, 6V6GT, 6V6GTA and 12V6GT are beam power pentodes intended for service as a general purpose audio power amplifier or vertical deflection amplifier in television receiver sweep circuits. They are similar to lock-in Type 7C5 and miniature Type 6CM6.