

- * With external shield connected to cathode, except as noted.
 * With external shield and internal shield connected to ground.

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

Plate Voltage	200	volts
Grid Voltage:		
Negative-bias value	50	volts
Positive-bias value	0	volts
Average Cathode Current	22	mA
Plate Dissipation	2.5	watts

CHARACTERISTICS

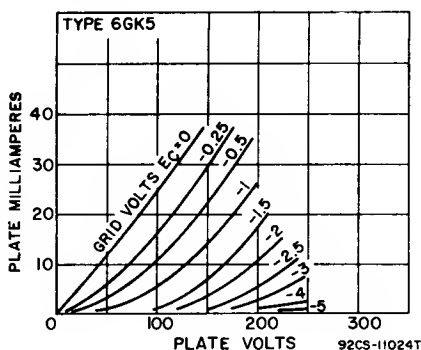
Plate Voltage	135	volts
Grid Voltage	-1	volts
Amplification Factor	78	
Plate Resistance (Approx.)	5400	ohms
Transconductance	15000	μ mhos
Plate Current	11.5	mA
Input Resistance*	275	ohms
Input Capacitance*	11.2	pF
Noise Figure†	4.7	dB
Grid Voltage (Approx.) for transconductance of 150 μ mhos	-4.2	volts
Grid Voltage (Approx.) for transconductance of 1500 μ mhos	-2.5	volts

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance, for cathode-bias operation	1	megohm
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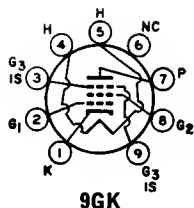
* Measured at 200 MHz with heater volts = 6.3 and plate effectively grounded for rf voltages.

† For a neutralized triode amplifier at a frequency of 200 MHz with signal source impedance adjusted for minimum noise output.

**POWER PENTODE****6GK6**

10GK6, 16GK6

Miniature type used in the output stage of audio amplifying equipment and also in the video output stage of color and black-and-white television receivers. Outlines section, 6G; requires miniature 9-contact socket. Types 10GK6 and 16GK6 are identical with type 6GK6 except for heater ratings.



	6GK6	10GK6	16GK6	
Heater Voltage (ac/dc)	6.3	10.6	16	volts
Heater Current	0.76	0.45	0.3	ampere
Heater Warm-up Time (Average)	—	11	11	seconds
Peak Heater-Cathode Voltage	±100 max	±100 max	±100 max	volts
Direct Interelectrode Capacitances:				
Grid No.1 to Plate			0.14 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield			10	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield			7	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Supply Voltage	605	volts
Plate Voltage	330	volts
Grid-No.2 Supply Voltage	605	volts
Grid-No.2 (Screen-Grid) Voltage	330	volts
Grid-No.1 (Control-Grid) Voltage, Negative-bias value	100	volts
Cathode Current	65	mA
Plate Dissipation	13.2	watts
Grid-No.2 Input, Peak	4	watts
Grid-No.-2 Input, Average	2	watts

CHARACTERISTICS AND TYPICAL OPERATION

Plate Supply Voltage	250	volts
Grid-No.2 Supply Voltage	250	volts
Cathode-Bias Resistor	135	ohms
Mu-Factor, Grid No.2 to Grid No.1	19	
Plate Resistance (Approx.)	38000	ohms
Transconductance	11300	μmhos
Peak AF Grid-No.1 Voltage	7.3	volts
Zero-Signal Plate Current	48	mA
Maximum-Signal Plate Current	50.6	mA
Zero-Signal Grid-No.2 Current	5.5	mA
Maximum-Signal Grid-No.2 Current	10	mA
Effective Load Resistance	5200	ohms
Total Harmonic Distortion	10	per cent
Maximum-Signal Power Output	5.7	watts

Push-Pull Class AB₁ and Class B AmplifierMAXIMUM RATINGS (Same as for Class A₁ Amplifier)

TYPICAL OPERATION (Values are for two tubes)

	Class AB ₁		Class B		
Plate Voltage	250	300	250	300	volts
Grid-No.2 Voltage	250	300	250	300	volts
Grid-No.1 Voltage	—	—	-11.6	-14.7	volts
Cathode-Bias Resistor	130	130	—	—	ohms
Peak AF Grid-No.1-to-Grid-No.1 Voltage	22.4	28	22.4	28	volts
Zero-Signal Plate Current	62	72	20	15	mA
Maximum-Signal Plate Current	75	92	75	92	mA
Zero-Signal Grid-No.2 Current	7	8	2.2	1.6	mA
Maximum-Signal Grid-No.2 Current	15	22	15	22	mA
Effective Load Resistance (plate to plate)	8000	8000	8000	8000	ohms
Total Harmonic Distortion	3	4	3	4	per cent
Maximum-Signal Power Output	11	17	11	17	watts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.3	megohm
For cathode-bias operation	1	megohm

