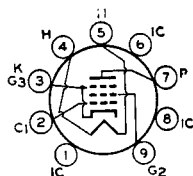


7060	Refer to chart at end of section.
7061	Refer to chart at end of section.
7167	Refer to chart at end of section.

7189 POWER PENTODE

Miniature type used as power amplifier tube in high-fidelity audio equipment. Outlines section, 6G; requires miniature 9-contact socket.



9BL

Heater Voltage	6.3	volts
Heater Current	0.76	ampere
Peak Heater-Cathode Voltage	±100 max	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.5	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	10.8	pF
Plate to Cathode, Heater, Grid-No.2, and Grid No.3	6.5	pF
Grid No.1 to Heater	0.25	pF

Class A₁ Amplifier

CHARACTERISTICS		
Plate Voltage	250	volts
Grid-No.2 (Screen-Grid) Voltage	250	volts
Grid-No.1 (Control-Grid) Voltage	-7.3	volts
Mu-Factor, Grid No.2 to Grid No.1	19.5	
Plate Resistance (Approx.)	40000	ohms
Transconductance	11300	μmhos
Plate Current	48	mA
Grid-No.2 Current	5.5	mA

Push-Pull Class AB₁ Amplifier

		Grid-No.2 Special Connection*	
MAXIMUM RATINGS (Design-Center Values)			
Plate Voltage	400	375	volts
Grid-No.2 Voltage	300	•	volts
Cathode Current	65	65	mA
Plate Dissipation	12	12	watts
Zero-Signal Grid-No.2 Input	2	2	watts
Maximum-Signal Grid-No.2 Input	4	4	watts
TYPICAL OPERATION (Values are for two tubes)			
Plate Supply Voltage	—	375	volts
Plate Voltage	400	—	volts
Grid-No.2 Supply Voltage	—	•	volts
Grid-No.2 Voltage	300	•	volts
Grid-No.1 Voltage	-15	—	volts
Cathode-Bias Resistor	—	220	ohms
Peak AF Grid-No.1 Voltage	14.8	17.7	volts
Zero-Signal Plate Current	15	70	mA
Maximum-Signal Plate Current	105	81	mA
Zero-Signal Grid-No.2 Current	1.6	•	mA
Maximum-Signal Grid-No.2 Current	25	•	mA
Effective Load Resistance (Plate-to-plate)	8000	11000	ohms
Total Harmonic Distortion	4	3	per cent
Maximum-Signal Power Output	24	16.5	watts
MAXIMUM CIRCUIT VALUES			
Grid-No.1-Circuit Resistance	0.3	1	megohm
	Fixed Bias	Cathode Bias	

- * Grid No.2 of each tube connected to tap on plate winding of output transformer.
- Obtained from taps on primary winding of the output transformer. The taps are located on each side of the center tap (B+) so as to supply 43 per cent of the plate signal voltage to grid No.2 of each output tube.