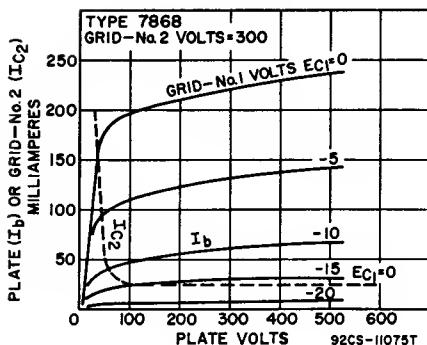




Push-Pull Class AB₁ Amplifier

Grid No.2 of Each Tube Connected to Tap on Plate Winding of Output Transformer*

MAXIMUM RATINGS (Same as for class A₁ amplifier)

TYPICAL OPERATION (Values are for two tubes)

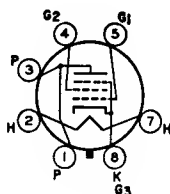
	Fixed Bias	Cathode Bias	
Plate Supply Voltage	400	425	volts
Grid-No.2 Supply Voltage	*	*	volts
Grid-No.1 Voltage	-20.5	—	volts
Cathode-Bias Resistor (Common to both cathodes)	—	185	ohms
Peak AF Grid-No.1-to-Grid-No.1 Voltage	41	42	volts
Zero-Signal Plate Current	60	88	mA
Maximum-Signal Plate Current	115	100	mA
Zero-Signal Grid-No.2 Current	8	12	mA
Maximum-Signal Grid-No.2 Current	18	16	mA
Effective Load Resistance (Plate-to-plate)	6600	6600	ohms
Total Harmonic Distortion	2.5	3.5	per cent
Maximum-Signal Power Output	23	21	watts

* Grid No.2 supply voltage is obtained from taps on the primary winding of the output transformer. The taps are located on each side of the center tap (B+) so as to apply 50 per cent of the plate signal voltage to the grid No.2 of each output tube.

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BEAM POWER TUBE

Glass octal type used as output amplifier in high-fidelity, high-power sound systems. Outlines section, 19J; requires octal socket. This tube, like other power-handling tubes, should be adequately ventilated. Heater: volts (ac/dc), 6.3; amperes, 1.6; maximum heater-cathode volts, ± 200 peak, 100 average.



8LY

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	660	volts
Grid-No.2 (Screen-Grid) Voltage	500	volts
Cathode Current	200	mA
Plate Dissipation*	35	watts
Grid-No.2 Input	5*	watts

CHARACTERISTICS

Plate Voltage	300	volts
Grid-No.2 Voltage	300	volts
Grid-No.1 (Control-Grid) Voltage	-12	volts
Grid-No.1 Voltage for plate current of 1 mA	-37	volts
Plate Resistance	16000	ohms
Transconductance	23000	μ mhos
Plate Current	100	mA
Grid-No.2 Current	5.5	mA
Triode Amplification Factor	16.5	

MAXIMUM CIRCUIT VALUES

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

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

TYPICAL OPERATION (Values are for two tubes)

Plate Supply Voltage	400	560	volts
Grid-No.2 Supply Voltage	275	300	volts
Grid-No.1 Voltage	-13	-15.5	volts
Peak AF Grid-to-Grid Voltage	24	31	volts
Zero-Signal Plate Current	150	100	mA
Maximum-Signal Plate Current	294	270	mA
Zero-Signal Grid-No.2 Current	4.4	3.4	mA
Maximum-Signal Grid-No.2 Current	34	31	mA
Effective Load (Plate-to-Plate)	2800	4200	ohms
Total Harmonic Distortion	2.5	2	per cent
Maximum Signal Power Output	65	100	watts

* A bias resistor or other means is required to protect the tube in absence of excitation.

* Grid-No.2 may reach 8 watts during peak levels of speech and music levels.

Refer to chart at end of section.

EM84/6FG6