

TECHNICAL INFORMATION (CONT'D)

Mechanical

Base or terminal description.....	Jumbo 4-large pin
Type of cooling.....	Natural ventilation
Net weight, approx.....	8 ounces
Mounting position.....	vertical, base down— horizontal, plane of plate vertical

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

CLASS B AUDIO-FREQUENCY POWER AMPLIFIER (TWO TUBES):

D-c plate voltage.....	1250	1500	1500	volts
Maximum signal plate current (per tube)*.....			210	milliamperes
D-c maximum signal plate input (per tube)*.....			315	watts
Plate dissipation (per tube)*.....			125	watts
D-c grid voltage.....		—16		volts
Peak a-f grid input voltage.....	235	280		volts
Zero signal plate current.....	148	84		milliamperes
Maximum signal plate current.....	400	400		milliamperes
Maximum signal plate input*.....	500	600		watts
Maximum signal driving power, approx.....	6	7		watts
Effective load, plate-to-plate.....	6700	8200		ohms
Maximum signal plate power output.....	300	370		watts

CLASS B RADIO-FREQUENCY POWER AMPLIFIER

Carrier conditions per tube for use with a max modulation factor of 1.0

D-c plate voltage.....	1250	1500	1500	volts
D-c grid voltage.....		—10		volts
D-c plate current.....	135	115	150	milliamperes
Plate input.....			185	watts
Plate dissipation.....			125	watts
Peak r-f grid input voltage.....	75	70		volts
D-c grid current, approx.....	15	15		milliamperes
Driving power, approx**.....	11	7.5		watts
Plate power output.....	55	57.5		watts

CLASS C RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR—PLATE MODULATED

Carrier conditions per tube for use with a max modulation factor of 1.0

D-c plate voltage.....	1000	1250	1250	volts
D-c grid voltage.....	—155	—160	—500	volts
D-c plate current.....	160	160	175	milliamperes
D-c grid current, approx.....	60	60	70	milliamperes
Plate input.....			220	watts
Plate dissipation.....			85	watts
Peak r-f grid input voltage, approx.....	295	300		volts
Driving power, approx.....	16	16		watts
Plate power output.....	110	140		watts

*Averaged over any audio-frequency cycle.

**At crest of audio-frequency cycle.

†Modulation, essentially negative, may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

CLASS C RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR

Key-down conditions per tube without modulation†

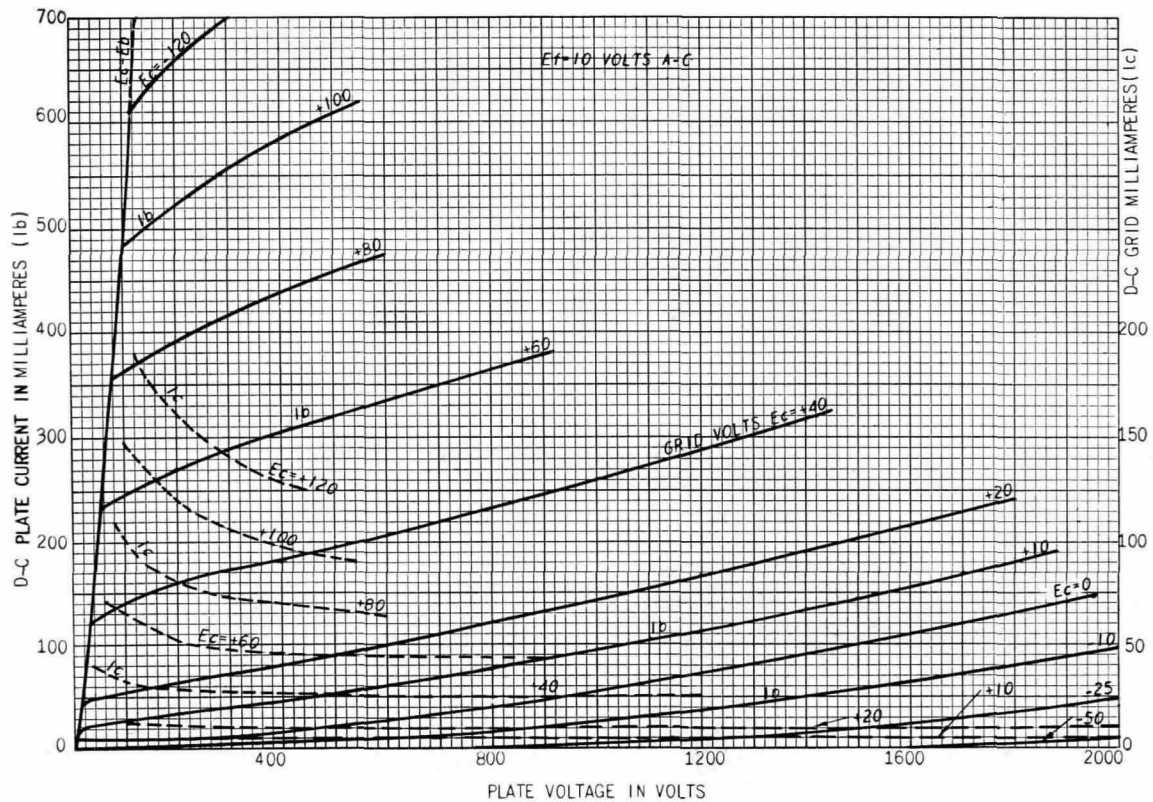
D-c plate voltage.....	1000	1250	1500	1500	volts
D-c grid voltage.....	-95	-100	-105	-500	volts
D-c plate current.....	200	200	200	210	milliamperes
D-c grid current, approx.....	40	40	40	70	milliamperes
Plate input.....				315	watts
Plate dissipation.....				125	watts
Peak r-f grid input voltage, approx.....	225	230	235		volts
Driving power, approx.....	8.5	8.5	8.5		watts
Plate power output.....	130	170	215		watts

APPLICATION NOTES

GL-805 can be operated at maximum ratings in all classes of service at frequencies as high as 30 megacycles. The tube may be operated at higher frequencies provided the maximum values of plate voltage and power input are reduced as the frequency is raised (other maximum ratings are the same as shown under CHARACTERISTICS). The tabulation below shows the highest percentage of maximum plate voltage and power input that can be used up to 80 megacycles for the various classes of service. Special attention should be given to adequate ventilation of the bulb at these frequencies.

Frequency.....	30	45	80	megacycles
Maximum permissible percentage of maximum Rated plate voltage and plate input:				
Class B telephony.....	100	90	77	per cent
Class C { telephony, plate-modulated..... { telegraphy.....	100	82	55	per cent

GL-805 AVERAGE PLATE CHARACTERISTICS

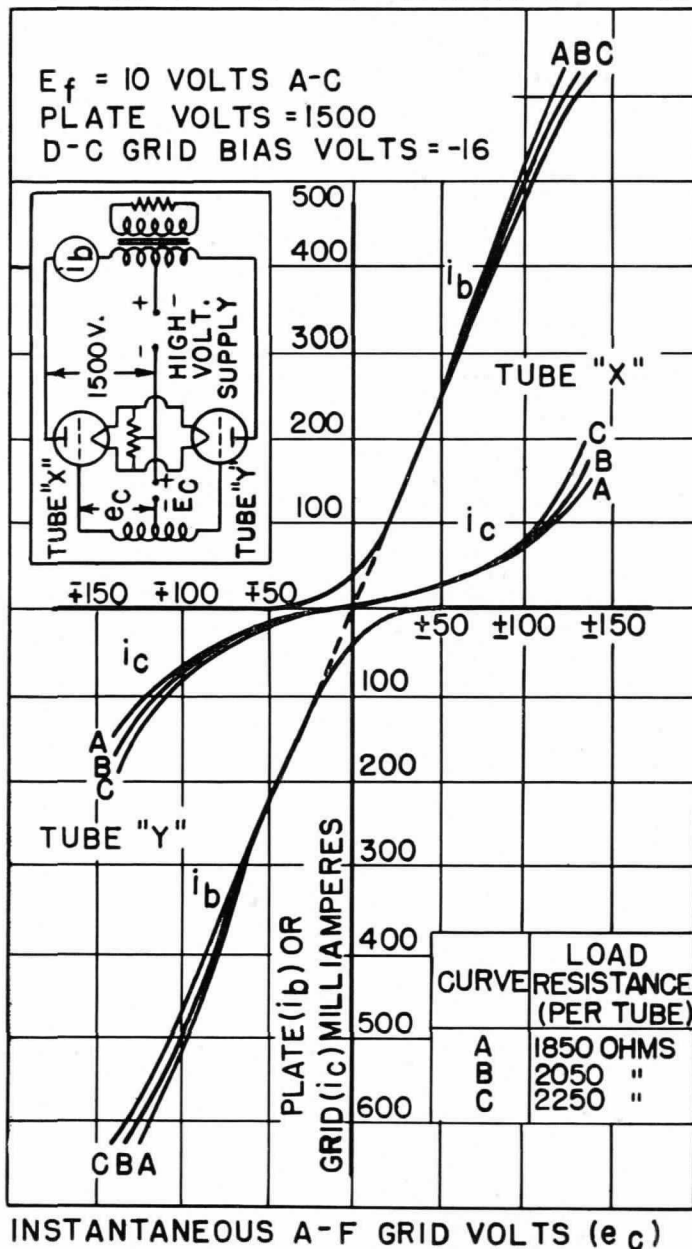


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GL -805

DYNAMIC TRANSFER CHARACTERISTICS



GL-805

OPERATION CHARACTERISTICS

$$E_f = \begin{cases} 10 \text{ VOLTS A.C. FOR } 805\text{'S} \\ 2.5 \text{ VOLTS A.C. FOR } 2A3\text{'S} \end{cases}$$

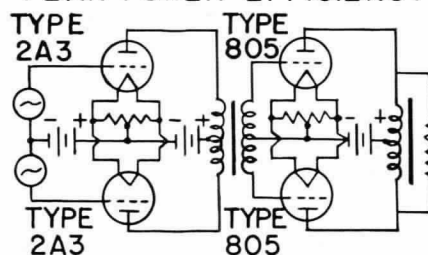
INPUT: CLASS AB-TWO TYPE 2A3'S PUSH-PULL
 PLATE VOLTS=300, GRID VOLTS=-62

OUTPUT: CLASS B-TWO TYPE 805'S
 PLATE VOLTS=1500, GRID VOLTS=-16

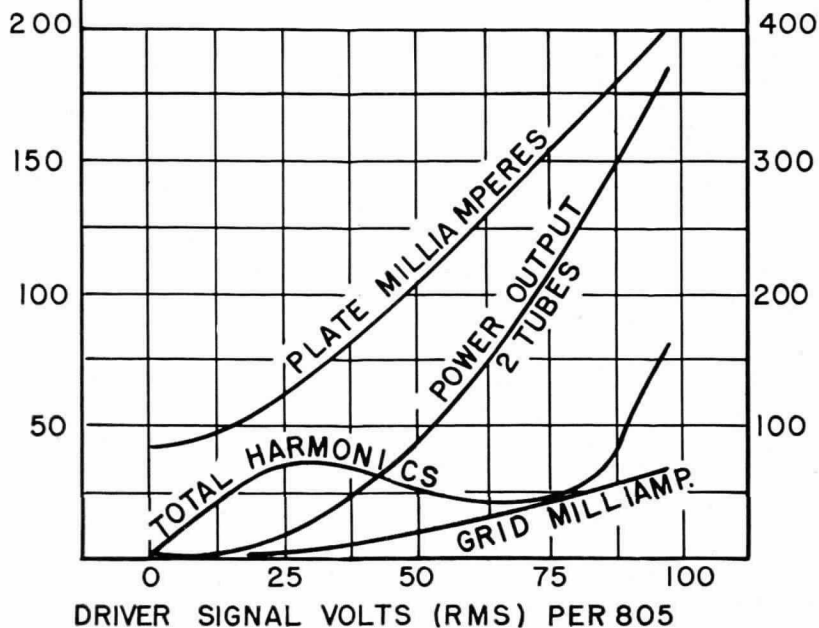
INTERSTAGE TRANSFORMER:

VOLTAGE RATIO $\frac{\text{PRIM}}{1/2 \text{ SEC.}} = 3.0$

PEAK POWER EFFICIENCY = 90 %



D-C PLATE OR D-C GRID MILLIAMPERES PER TUBE



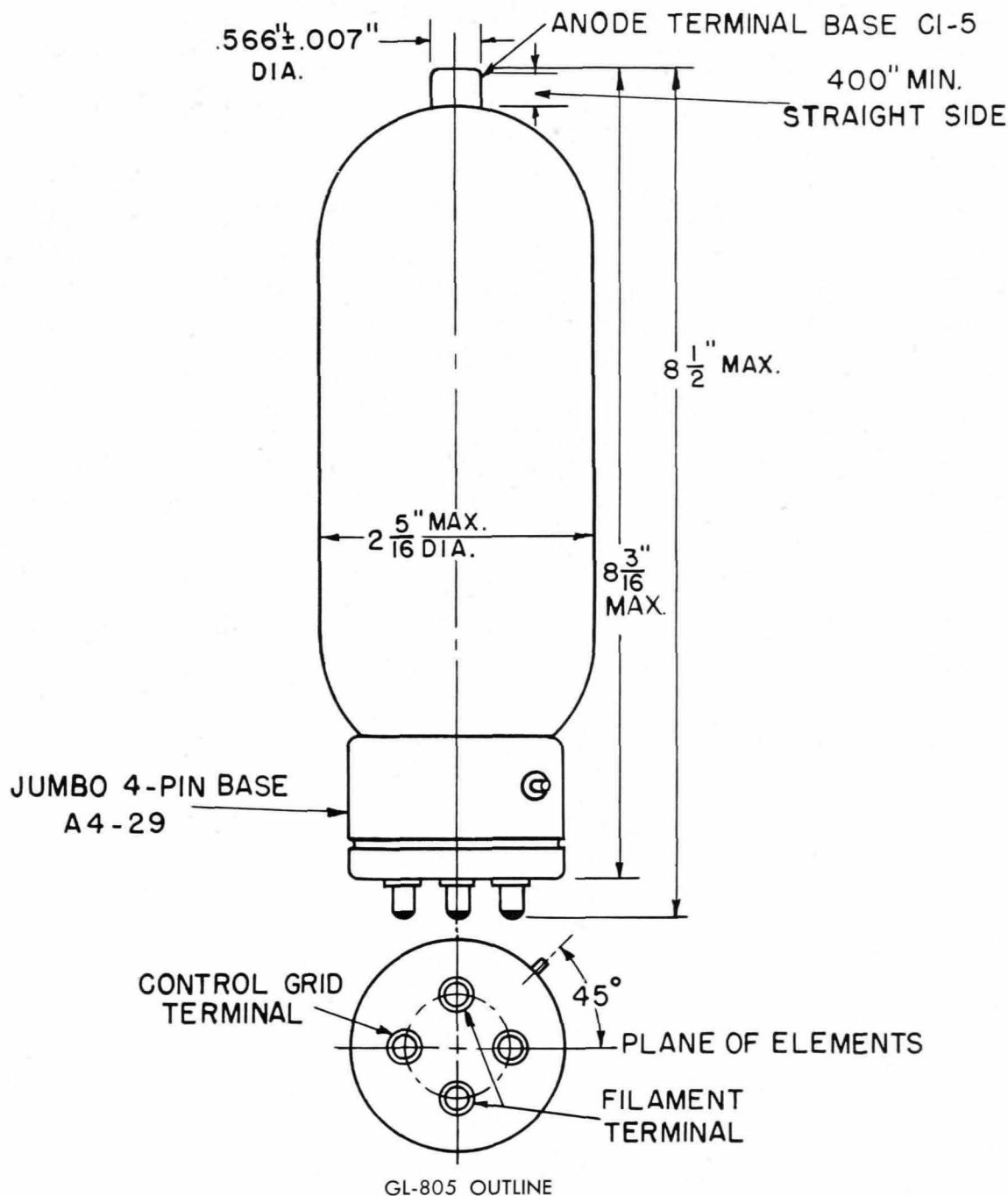
POWER OUTPUT - WATTS
 TOTAL HARMONICS - PER CENT

GL-805

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