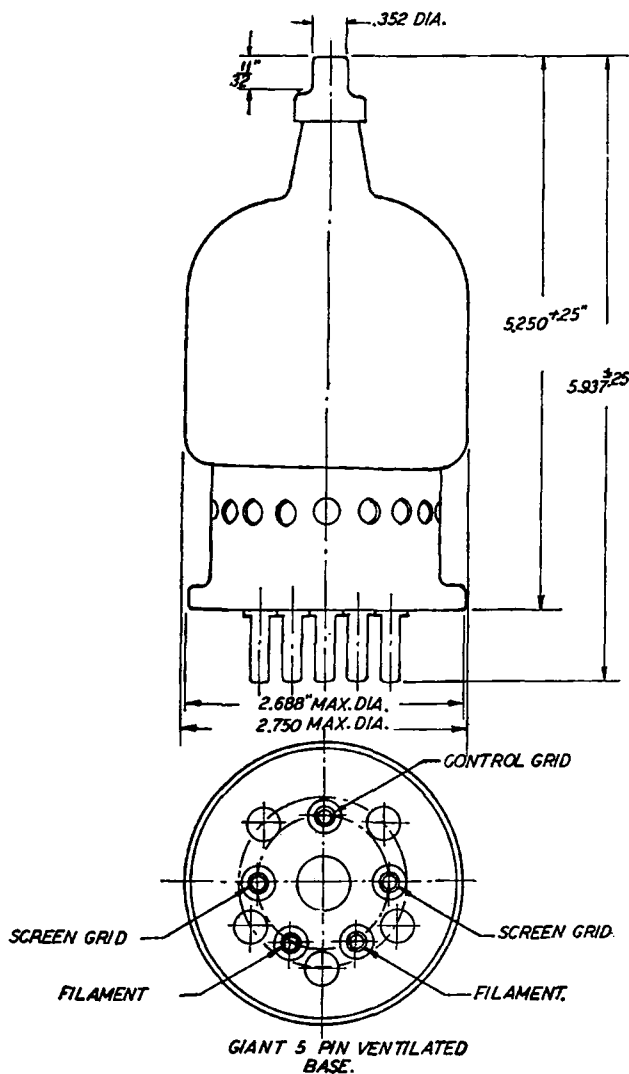


PACIFIC ELECTRONICS

MANUFACTURING PLANT AND LABORATORY
LOS GATOS, CALIFORNIA

HIGH FREQUENCY TRANSMITTING BEAM TETRODE Type PE-340/4D23

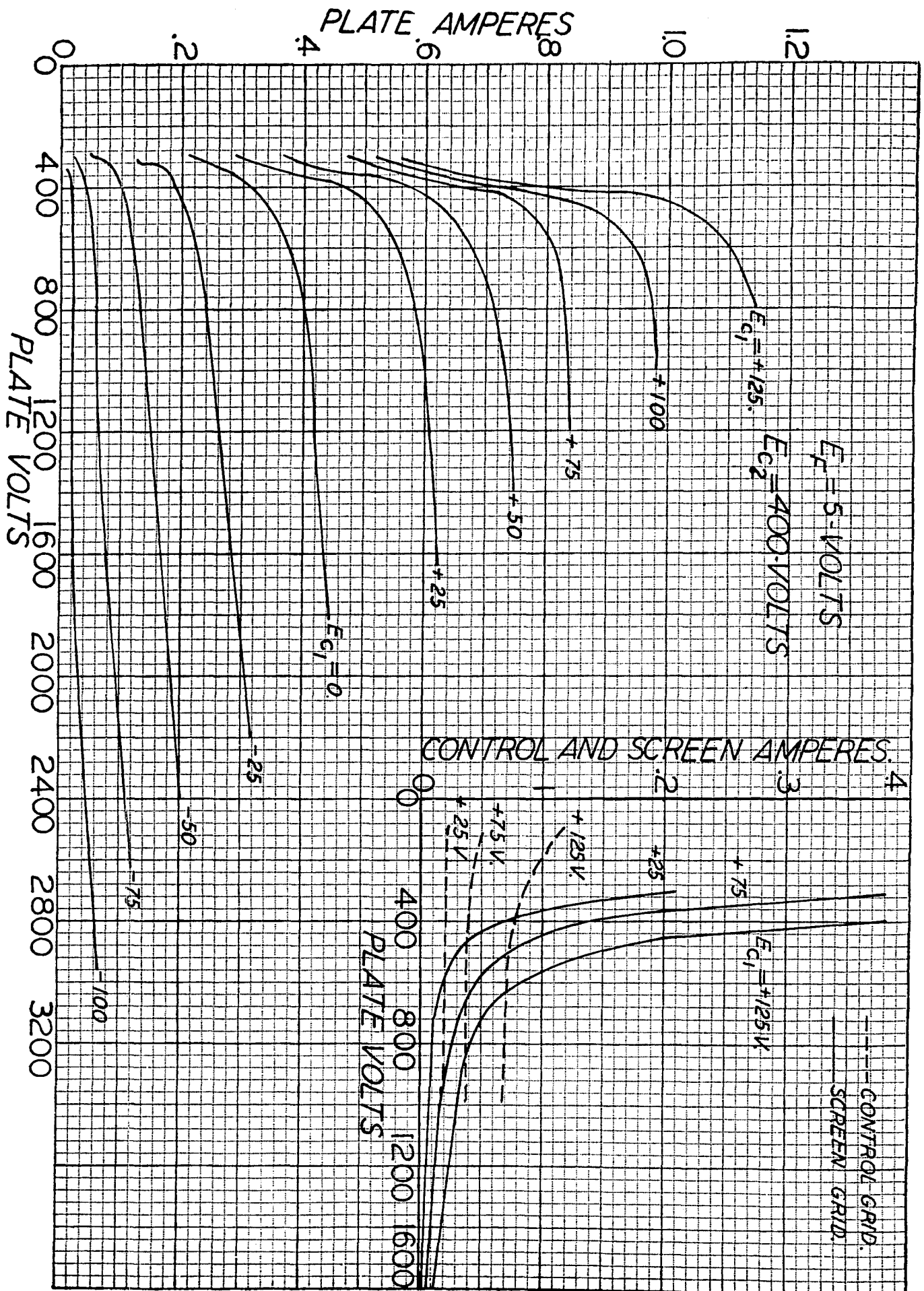


Filament	Thoriated Tungsten
Voltage	5.0 volts
Current	7.5 amps
Transconductance ($I_{b1} \pm .060$ amps)	2800 micromhs

Direct Interelectrode Capacitances:

Grid-Plate	0.06 mmf
Input, Grid-Filament	11.6 mmf
Output, Plate-Filament	4.35 mmf
Frequency for Maximum Ratings	120 mcs

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MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Class "C" Radio-Frequency Power Amplifier and Oscillator

(Key down conditions per tube without modulation. Modulation, essentially negative, may be used if positive peak of A-F envelope does not exceed 115% of carrier conditions.)

	<u>Typical Operation</u>	<u>Maximum Ratings</u>
D-C Plate Voltage	3000	4000 volts
D-C Grid Voltage (Grid No. 1)	-290	-500 volts
D-C Grid Voltage (Grid No. 2)	400	400 volts
D-C Plate Current	200	225 ma
D-C Grid Current (approx.)	7	25 ma
D-C Screen Current	27	30 ma
Plate Input	600	750 watts
Screen Input	11	30 watts
Plate Dissipation	150	150 watts
Peak R-F Grid Input Voltage (approx.)	400	volts
Driving Power (approx.)	2.6	watts
Plate Power Output	450	watts

Class "C" Radio-Frequency Power Amplifier and Oscillator, Plate Modulated*

(Carrier conditions per tube for use with a maximum modulation factor of 1.0)

	<u>Typical Operation</u>	<u>Maximum Ratings</u>
D-C Plate Voltage	2500	3000 volts
D-C Grid Voltage (Grid No. 1)	-425	-500 volts
D-C Grid Voltage (Grid No. 2)	400	400 volts
D-C Plate Current	180	200 ma
D-C Grid Current	9	25 ma
D-C Screen Current	27	30 ma
Plate Input	450	500 watts
Screen Input	11	30 watts
Plate Dissipation	100	100 watts
Peak R-F Grid Input Voltage	550	volts
Driving Power (approx.)	4	watts
Plate Power Output	350	watts

*Plate and Screen Modulated Simultaneously

CLASS "AB₂" AUDIO-FREQUENCY POWER AMPLIFIER, TWO TUBES

	<u>Typical Operation</u>	<u>Maximum Ratings</u>
D-C Plate Voltage	2500	3000 volts
Max. Sig. Plate Current (per tube) *		200 ma
D-C Max. Sig. Plate Input (per tube) *		400 watts
Plate Dissipation (per tube) *		150 watts
D-C Grid Voltage (grid No. 1)	-95	volts
D-C Screen Voltage (grid No. 2)	400	volts
Peak A-F Grid Input Voltage (grid to grid)	234	volts
Zero Sig. Plate Current	100	ma
Max. Sig. Plate Current	284	ma
Zero Sig. Screen Current	0	ma
Max. Sig. Screen Current	7	ma
Max. Sig. Driving Power (approx.)	1.8	watts
Effective Load (plate to plate)	19100	ohms
Max. Sig. Plate Power Output	460	watts

*(Averaged over any audio-frequency cycle.)

MECHANICAL REQUIREMENTS FOR THE PE-340/4D23

When the PE-340/4D23 is operated at frequencies above 30 megacycles at or near its maximum ratings, forced air cooling of the envelope and seals will be necessary. Forced cooling is necessary below 30 megacycles should adequate air circulation be restricted by shielding, other components, etc. At the higher frequencies a small fan or blower should be directed toward the upper tube structure to cool the envelope and plate seal. If free air circulation through the base is not possible, air should be directed vertically into the holes in the bottom of the base.

The PE-340/4D23 should be mounted vertically, either base up or base down.