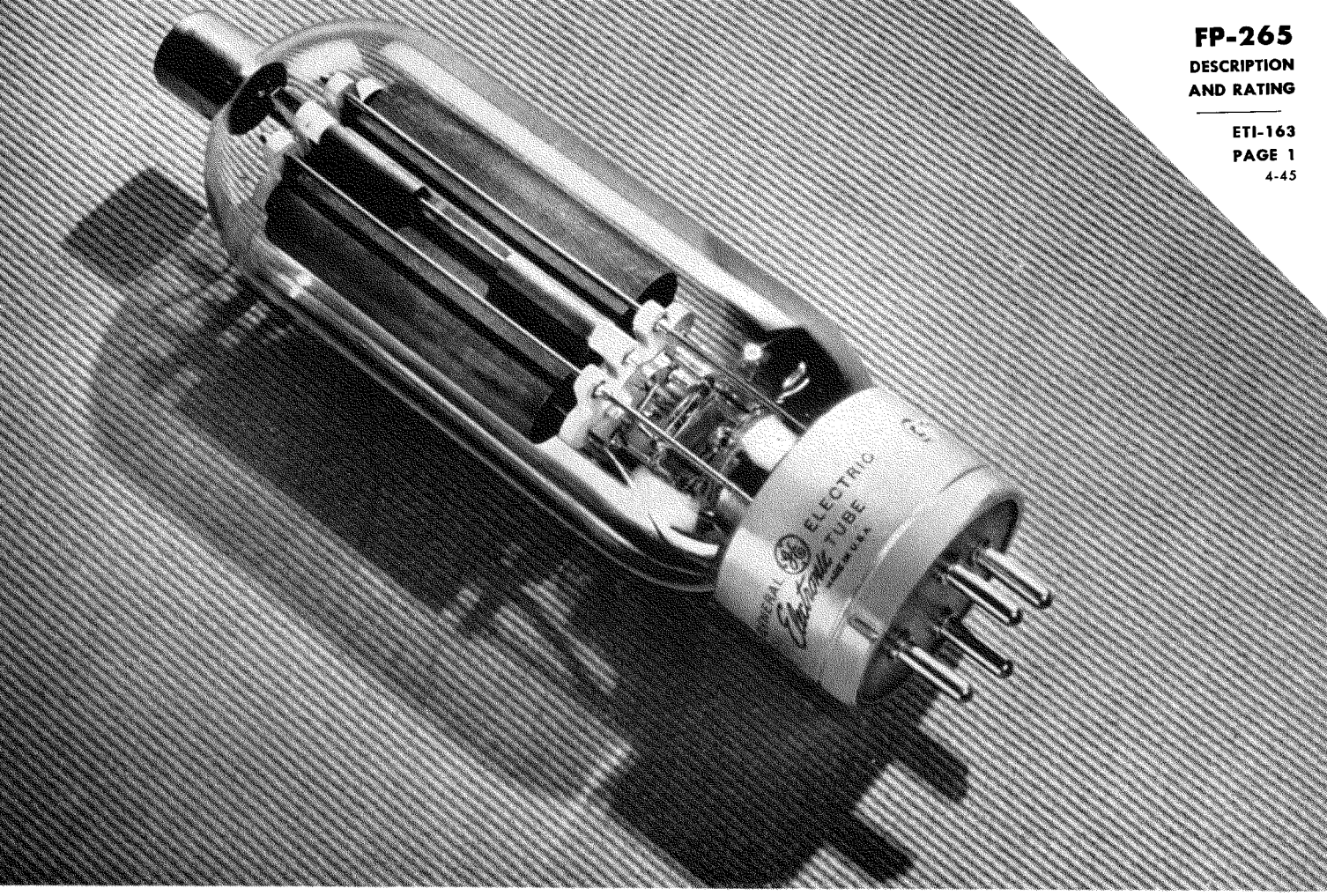


PLIOTRON

DESCRIPTION

The FP-265 is a high-vacuum tube designed for use as an oscillator and radio-frequency amplifier in high-frequency circuits.

The plate lead is brought out the top of the bulb, and the grid lead is brought out through the side wall of the stem tube to the cathode base. The mount is supported by a special insulator so that the clamp and supports are not connected to the plate.

The filament of the FP-265 is designed to provide ample emission for operation in circuits utilizing half-wave alternating current. In designing the filament transformer, conditions should be chosen so that the filament voltage is never less than 10 volts nor more than 10.5 volts for continuous operation. For less than one hour of operation, a filament voltage up to 11 volts is permissible.

TECHNICAL INFORMATION

These data are for reference only. For design information refer to specifications.

GENERAL CHARACTERISTICS

Number of electrodes	3	
Electrical		
Filament—thoriated tungsten		
Voltage	10	volts
Current	5.2	amperes
Average characteristics, $I_b = 0.090$ amperes		
Amplification factor	75	
Grid-plate transconductance	6000	micromhos

Electronic TUBE

GENERAL ELECTRIC

TECHNICAL INFORMATION (CONT'D)

Direct interelectrode capacitance

Grid-plate	11	micromicrofarads
Grid-filament	7.8	micromicrofarads
Plate-filament	3.8	micromicrofarads

Mechanical

Base	Super-jumbo 4-pin
Net weight, approx	14 ounces
Shipping weight, approx	6 pounds
Operating position	vertical or horizontal with plane of electrodes vertical

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 the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

	Typical Operation	Maximum Ratings	
D-c plate voltage, filtered or pulsating	....	1500	volts
A-c plate voltage, rms	1800	1800	volts
D-c grid voltage	−100	−400	volts
D-c plate current	200	200	milliamperes
D-c grid current	30	60	milliamperes
R-f grid current	....	10	amperes
Plate input	....	350	watts
Plate dissipation	130	160	watts
Plate power output	200	....	watts

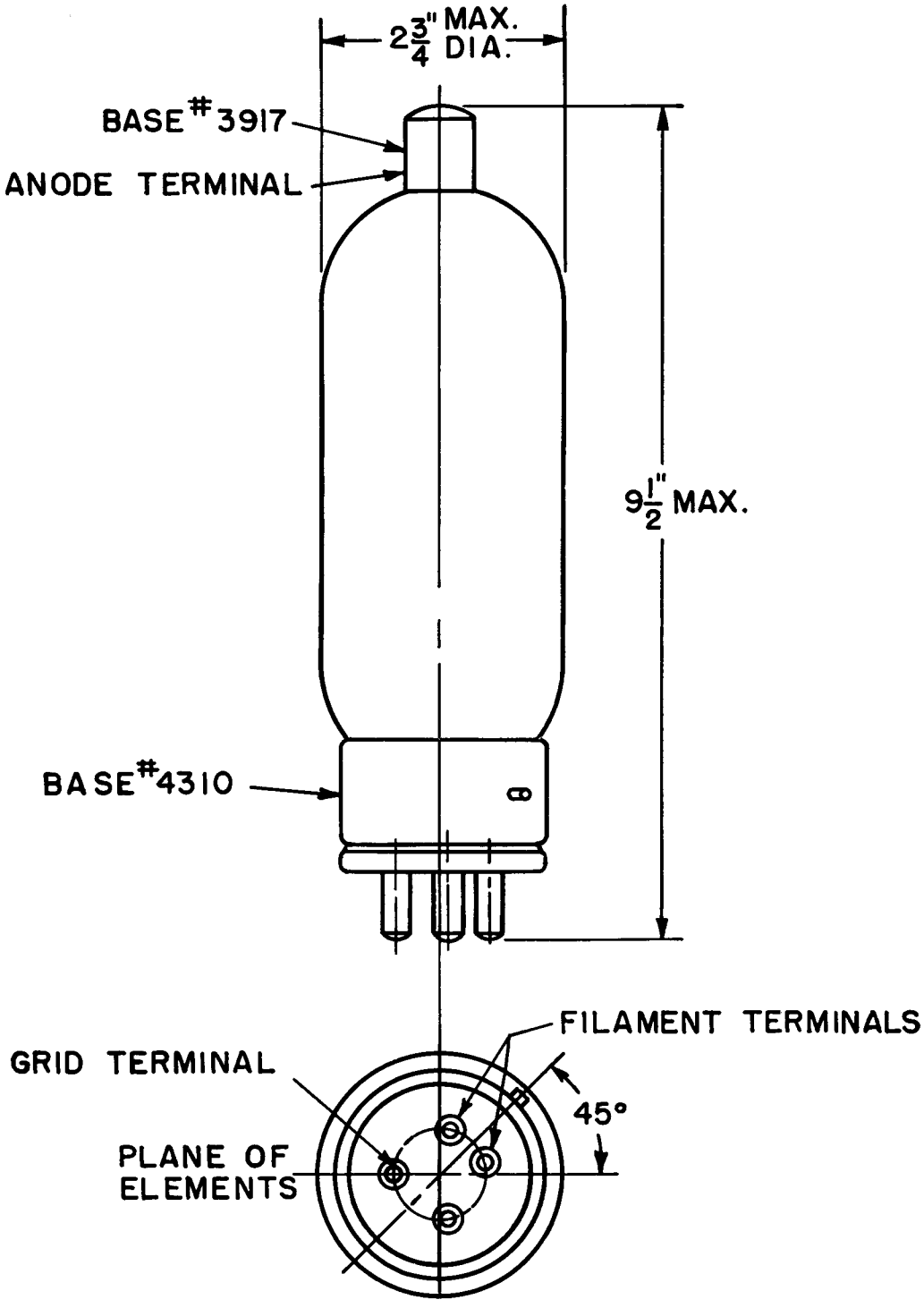
APPLICATION NOTES

The normal value of grid leak, when the tube is used as an oscillator or r-f power amplifier (Class c), is in the neighborhood of 3000 ohms, although this may be replaced by a suitable fixed bias. If self-bias is used, the cathode resistor should be approximately 500 ohms. In some cases, to minimize the danger of overloads, a combination of grid leak and partial self-bais may be desirable. The values should be chosen so that the plate loss at the worst condition is limited to the maximum rating.

The maximum ratings apply only at frequencies below 15 megacycles. For operation at higher frequencies adequate ventilation and normal ambient temperatures must be maintained, and the plate voltage must be reduced as indicated.

Frequency	15	30	40	megacycles
Percentage of maximum rated Plate voltage and plate input	100	75	50	per cent

With the grid connected to the plate through the shortest possible connection, the resonant frequency of the grid-plate circuit is approximately 100 megacycles.



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OUTLINE FP-265 PLIOTRON

Electronics Department
GENERAL ELECTRIC
Schenectady, N. Y.

4-45 (4M)
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