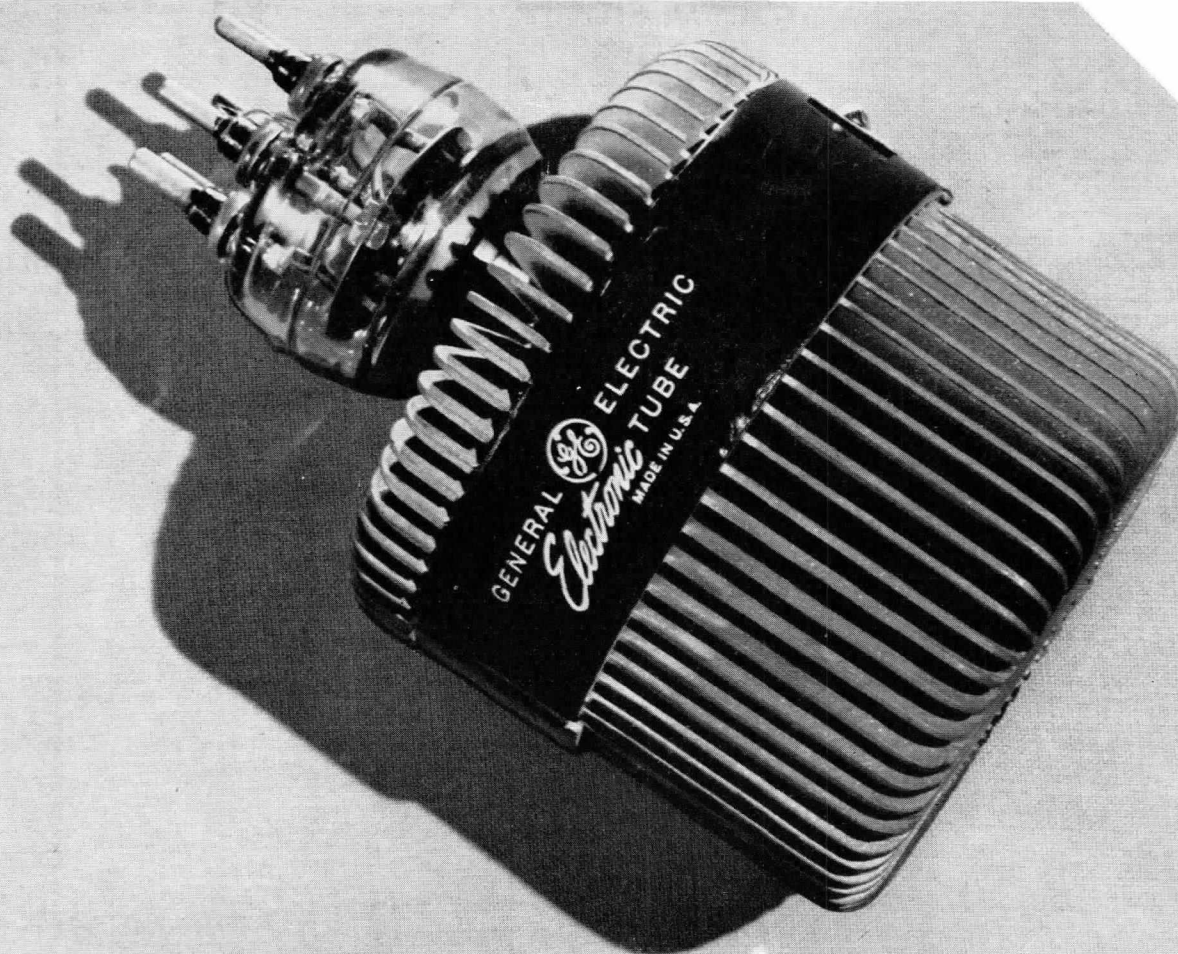




TRIODE

DESCRIPTION

The GL-8002-R is a three-electrode transmitting tube designed for use as a radio-frequency power amplifier at high frequencies. Multiple leads for both the filament and grid connectors minimize the inductance to these electrodes. The anode is

fitted with a special hub and cooling is obtained by forced air. Maximum ratings may be used up to a frequency of 120 megacycles and reduced ratings up to 200 megacycles. The GL-8002-R plate is capable of dissipating 750 to 1200 watts.

TECHNICAL INFORMATION

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

GENERAL CHARACTERISTICS

Number of Electrodes.....	3
Electrical	
Cathode—Filamentary, tungsten	
Filament voltage.....	16 volts
Filament current.....	38 amperes
Average characteristics, $E_b = 2.4$ kilovolts, $I_b = 0.5$ ampere	
$E_f = 16$ volts	
Grid voltage.....	—50 volts
Amplification factor.....	21.5
Direct interelectrode capacitances, approximate	
Plate to grid.....	8.9 micromicrofarads
Grid to filament.....	10.2 micromicrofarads
Plate to filament.....	1.0 micromicrofarads
Frequency for maximum ratings.....	120 megacycles

GENERAL ELECTRIC

Supersedes ETX-201 dated 5-46


Electronic
TUBE

TECHNICAL INFORMATION (CONT'D)

Mechanical

Type of cooling	forced air
Maximum incoming air temperature*	45 centigrade
Maximum glass temperature	150 centigrade
Air flow to radiator	100 cu ft per min
Required Air Flow on Anode	
Plate Dissipation	800 1000 1200 watts
Air Flow	72 88 100 cu ft per min
Pressure	0.35 0.45 0.60 inches water
Net weight, approximate	7 pounds
Shipping weight, approximate	15 pounds
Mounting position	vertical, anode down

* Ordinarily, deflecting vanes diverting the outgoing air toward the terminal seals provide sufficient cooling.

MAXIMUM RATINGS**CLASS B RADIO-FREQUENCY POWER AMPLIFIER**

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

Plate voltage, d-c	3500 volts
Plate current, d-c	0.6 ampere
Plate input	1800 watts
Plate dissipation	1200 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

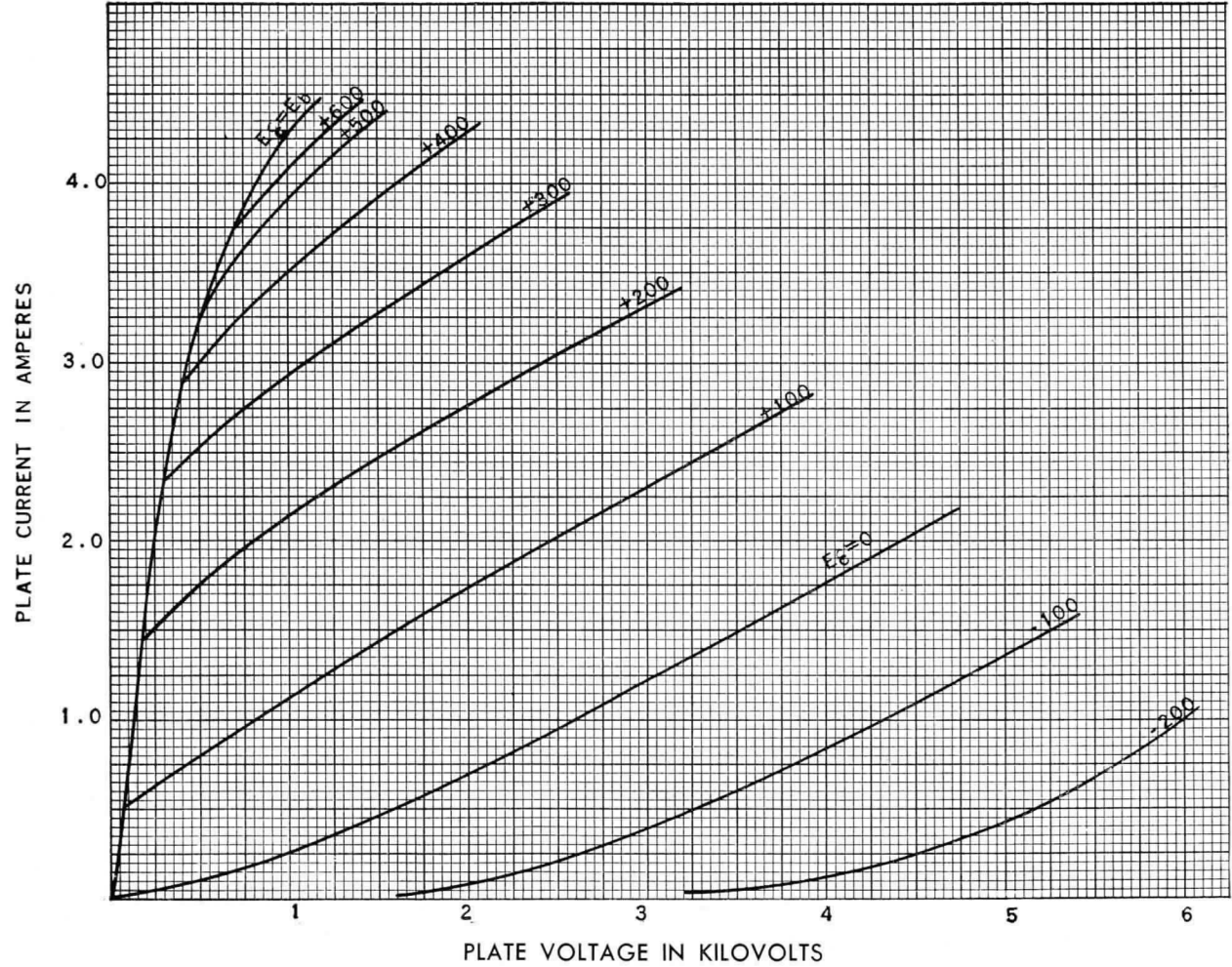
Plate voltage, d-c	2500 volts
Grid voltage, d-c	-500 volts
Plate current, d-c	0.5 ampere
Grid current, d-c	0.1 ampere
Plate input	1250 watts
Plate dissipation	750 watts

CLASS C RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR, TELEGRAPHY

Key-down conditions per tube without modulation. Essentially negative modulation may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

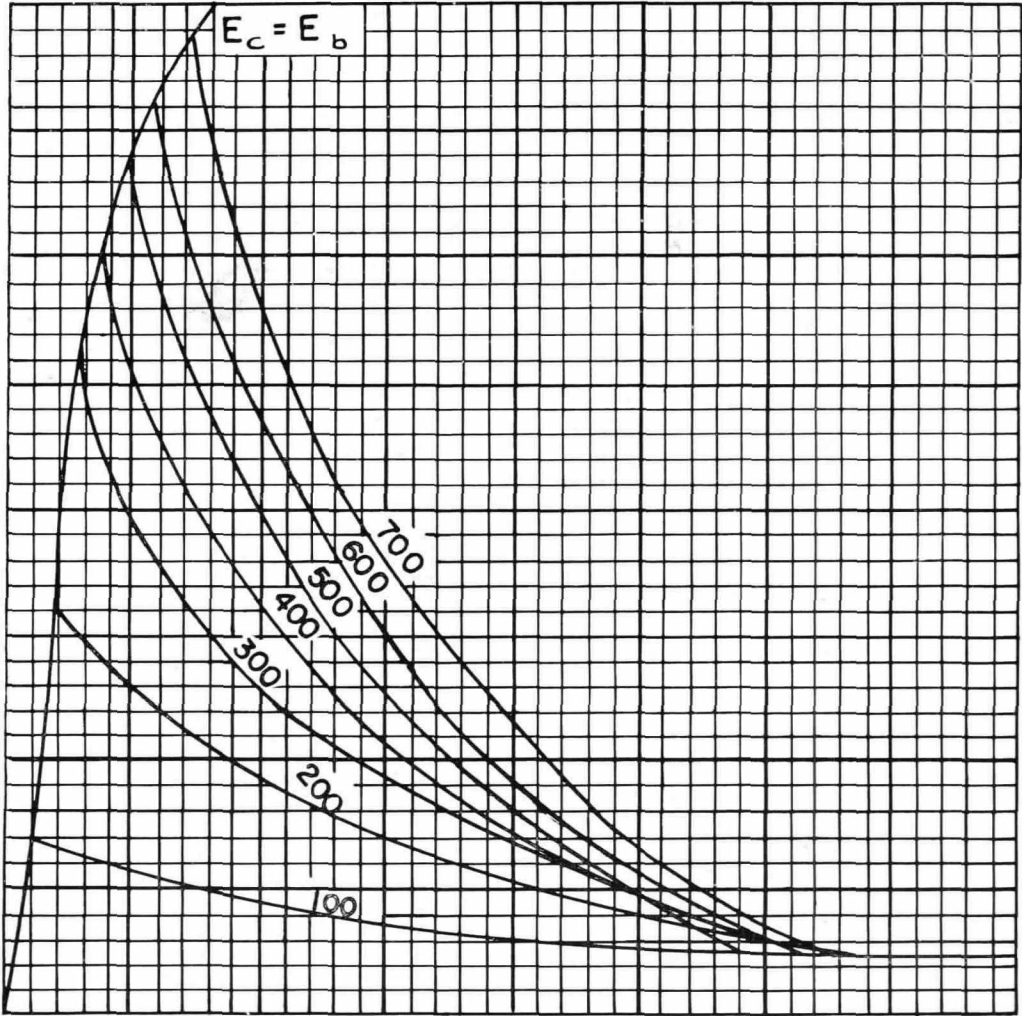
Plate voltage, d-c	3500 volts
Grid voltage, d-c	-500 volts
Plate current, d-c	1.0 ampere
Grid current, d-c	0.1 ampere
Plate input	3000 watts
Plate dissipation	1200 watts

GL-8002-R
AVERAGE PLATE CHARACTERISTICS
($E_i = 16.0$ VOLTS A-C)

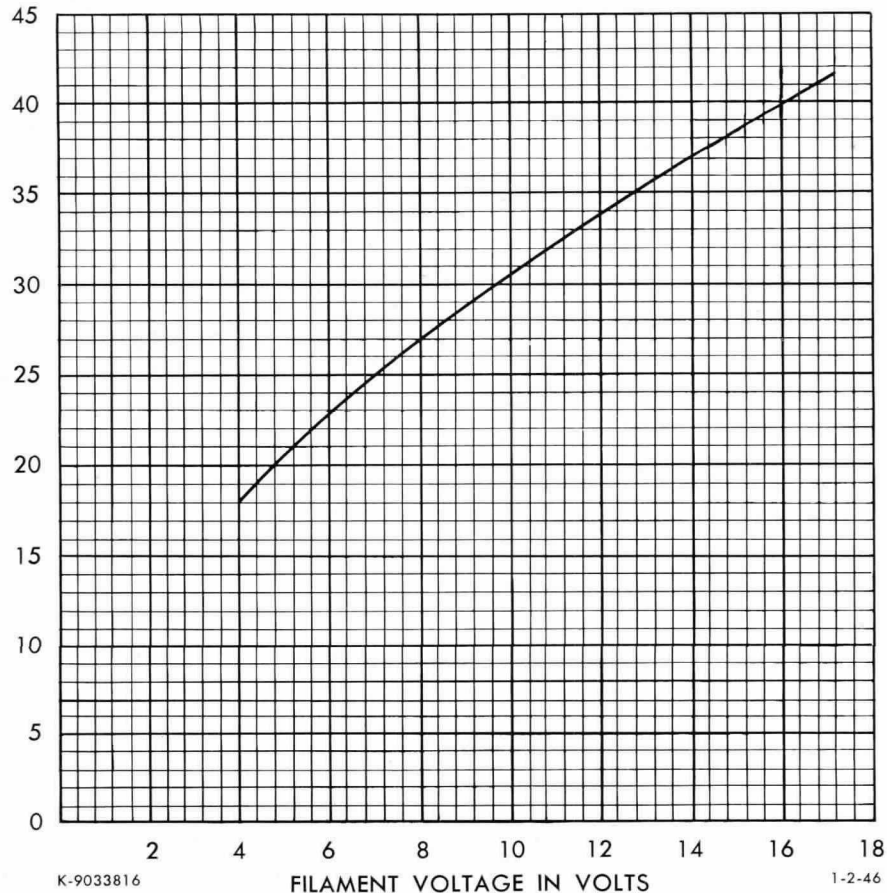
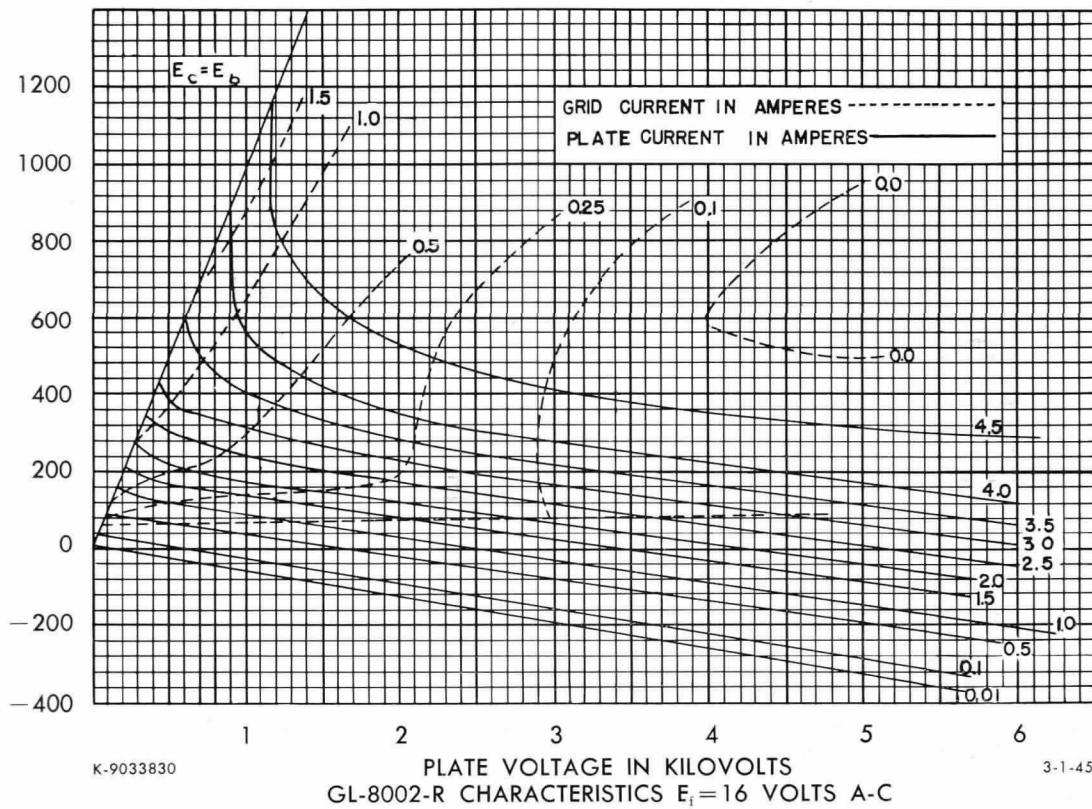


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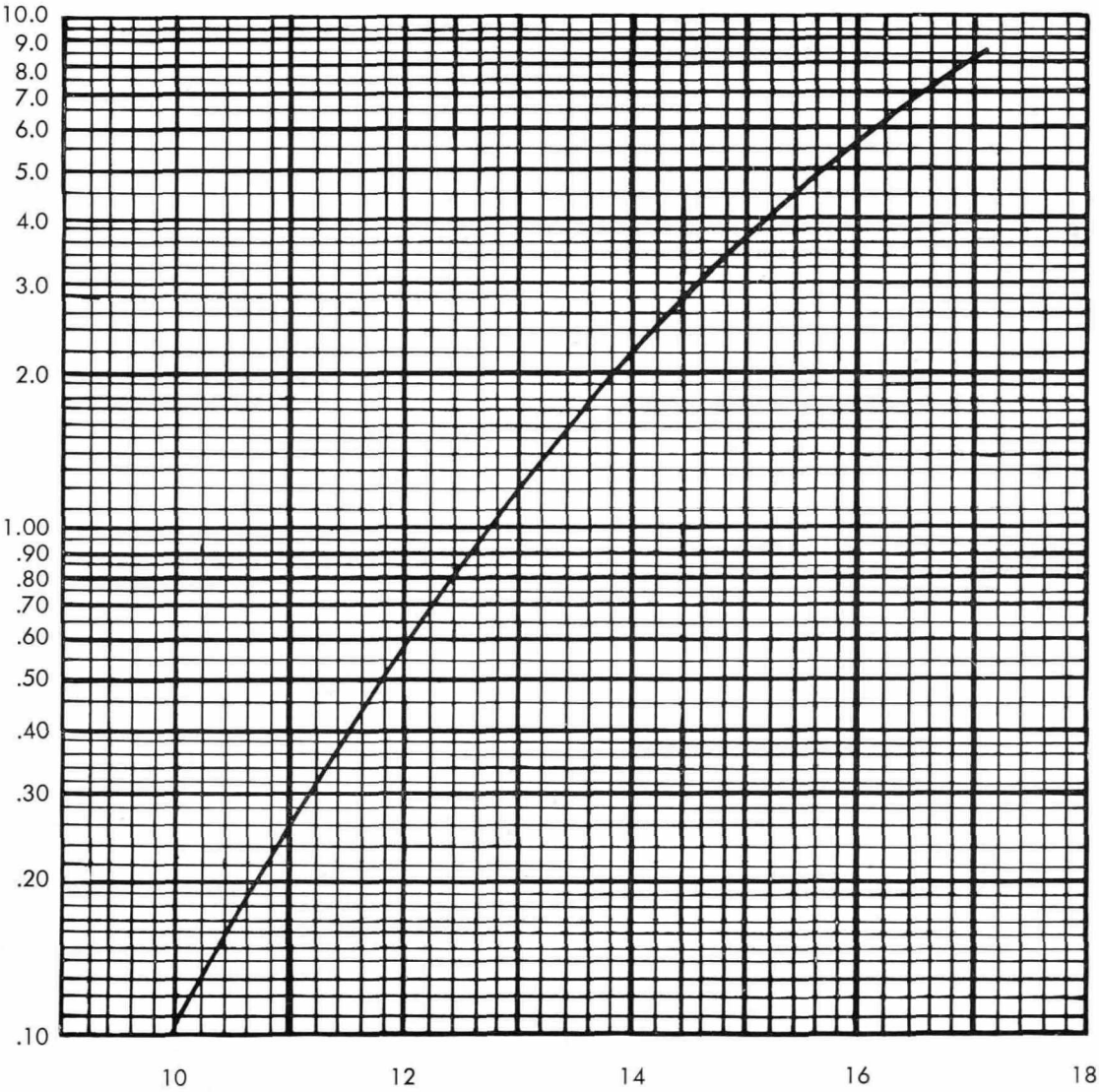
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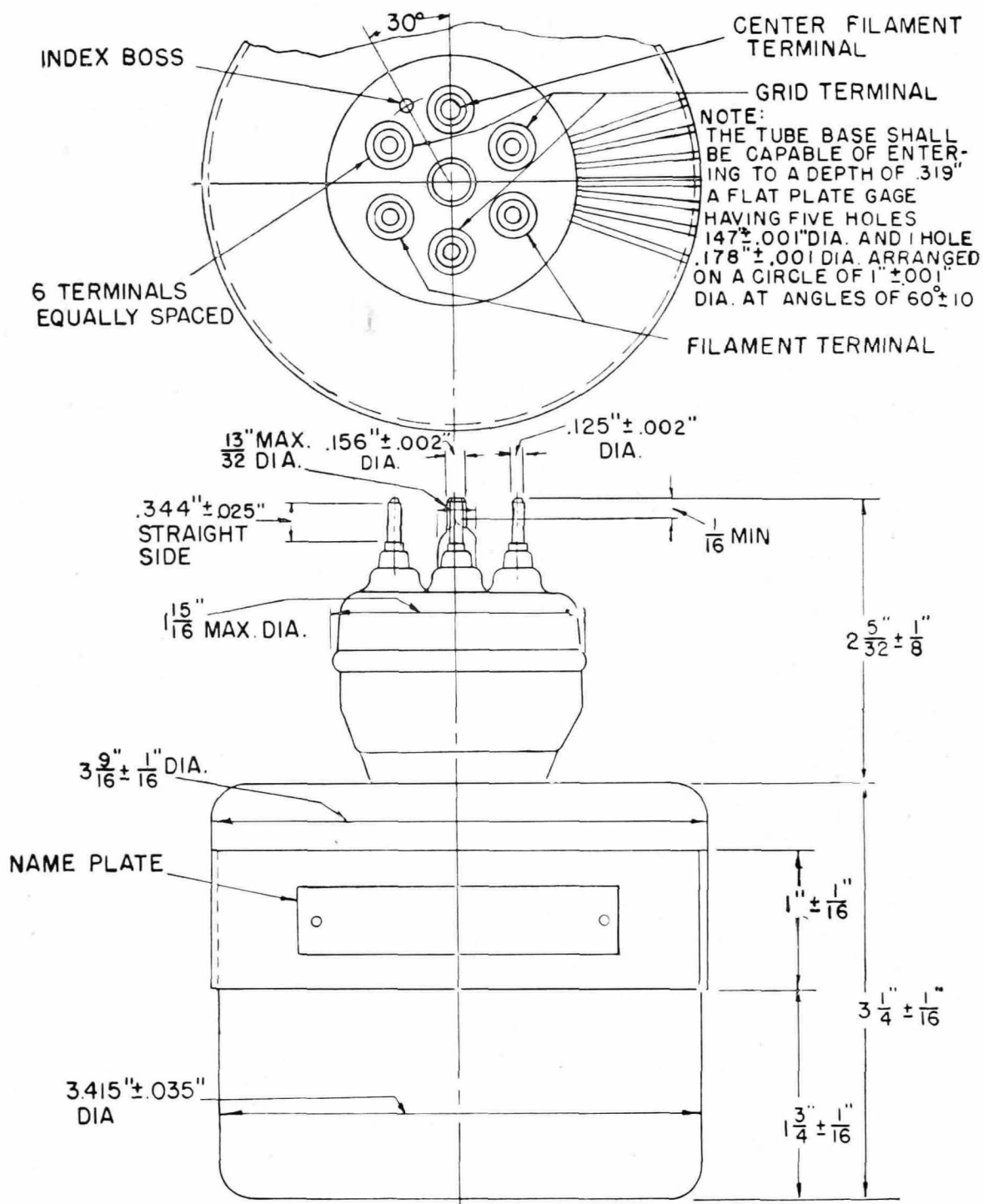
GL-8002-R TYPICAL GRID-PLATE TRANSFER CHARACTERISTICS
($E_i = 16.0$ VOLTS A-C)



GL-8002-R AVERAGE FILAMENT CHARACTERISTIC (COLD RESISTANCE OF FILAMENT = .036 OHM)



A-C FILAMENT VOLTAGE IN VOLTS
GL-8002-R AVERAGE EMISSION CHARACTERISTIC



OUTLINE GL-8002-R

Electronics Department
GENERAL ELECTRIC
Schenectady, N. Y.