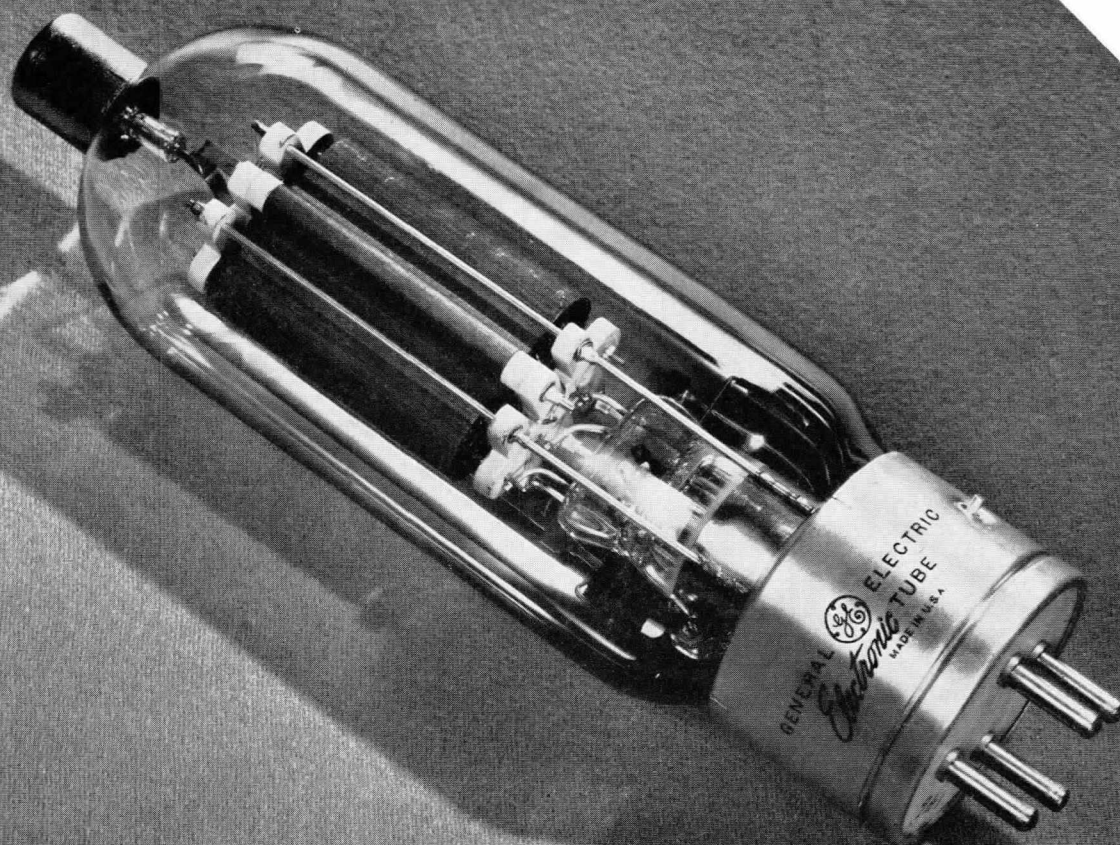




TRIODE

DESCRIPTION

The GL-152 is a three-electrode transmitting tube designed for use as a Class B and C radio-frequency power amplifier, Class C oscillator or as a Class B

modulator. This tube can be operated at maximum ratings at frequencies as high as 15 megacycles and at frequencies up to 60 megacycles at reduced ratings.

TECHNICAL INFORMATION

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

GENERAL CHARACTERISTICS

Number of electrodes.....	3	
Electrical		
Cathode—Filamentary		
Voltage.....	10	volts
Current.....	3.25	amperes
Average characteristics		
Amplification factor.....	25	
Grid-plate transconductance.....	4000	micromhos
Direct interelectrode capacitances		
Grid-plate.....	8.4	micromicrofarads
Grid-filament.....	7.5	micromicrofarads
Plate-filament.....	3.9	micromicrofarads
Frequency for maximum ratings.....	15	megacycles


Electronic
 TUBE

GENERAL  ELECTRIC

TECHNICAL INFORMATION (CONT'D)

Mechanical

Type of cooling.....	Convection
Maximum ambient temperature.....	60 centigrade
Net weight, approx.....	14 ounces
Mounting position.....	vertical, base up or down—horizontal, filament in vertical plane

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

CLASS B AUDIO-FREQUENCY POWER AMPLIFIER (TWO TUBES)

	Typical Operation	Maximum Ratings
D-c plate voltage.....	1250	1500 volts
Maximum signal d-c plate current, per tube†.....		175 milliamperes
D-c max signal plate input, per tube†.....		250 watts
Plate dissipation, per tube†.....		125 watts
D-c grid voltage.....	-40	volts
Zero signal d-c plate current.....	16	milliamperes
Maximum signal d-c plate current.....	320	milliamperes
Effective load, plate-to-plate.....	8400	ohms
Maximum signal plate power output, approx.....	250	watts

CLASS B RADIO-FREQUENCY POWER AMPLIFIER

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

D-c plate voltage.....	1250	1500 volts
D-c grid voltage.....	-40	volts
D-c plate current.....	132	175 milliamperes
Plate input.....		200 watts
Plate dissipation.....		125 watts
Plate power output, approx.....	55	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

D-c plate voltage.....	1000	1250 volts
D-c grid voltage.....	-200	-400 volts
D-c plate current.....	160	175 milliamperes
D-c grid current, approx.....	30	60 milliamperes
Plate input.....		220 watts
Plate dissipation.....		80 watts
Plate power output.....	100	watts

CLASS C RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR

Key-down conditions per tube without modulation ‡

D-c plate voltage.....	1250	1500 volts
D-c grid voltage.....	-150	-400 volts
D-c plate current.....	180	200 milliamperes
D-c grid current, approx.....	30	60 milliamperes
Plate input.....		300 watts
Plate dissipation.....		125 watts
Plate power output, approx.....	150	watts

†Averaged over any audio-frequency cycle.

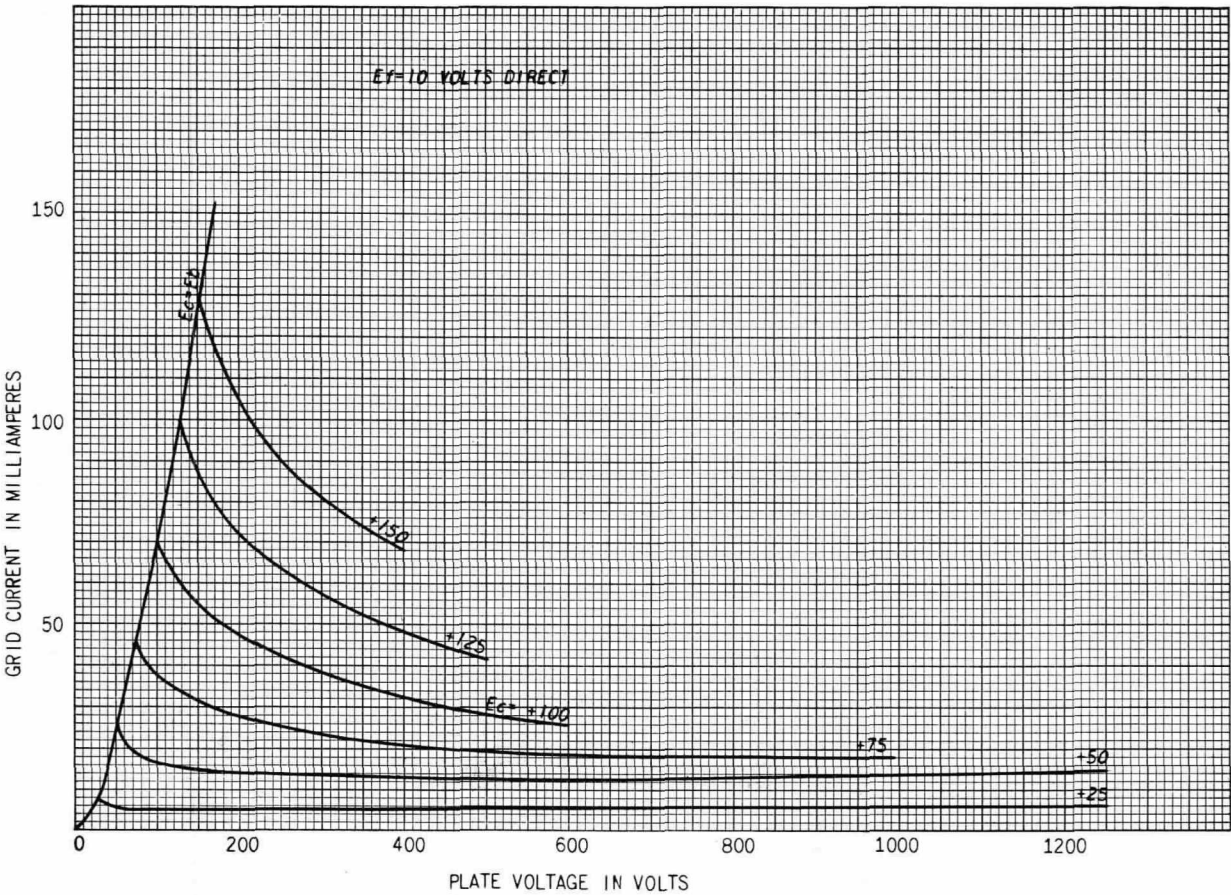
‡Modulation, essentially negative, may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

APPLICATION NOTES

The GL-152 can be operated at frequencies as high as 15 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 above). The tabulation below shows the highest percentage of maximum plate voltage and power input that can be used up to 60 megacycles for the various classes of service. Special attention should be given to adequate ventilation of the bulb at these frequencies.

Frequency	15	30	60 megacycles
Percentage of maximum rated plate voltage and plate input			
Class B	100	85	69 per cent
Class C plate modulated	100	75	50 per cent
Class C unmodulated	100	75	50 per cent

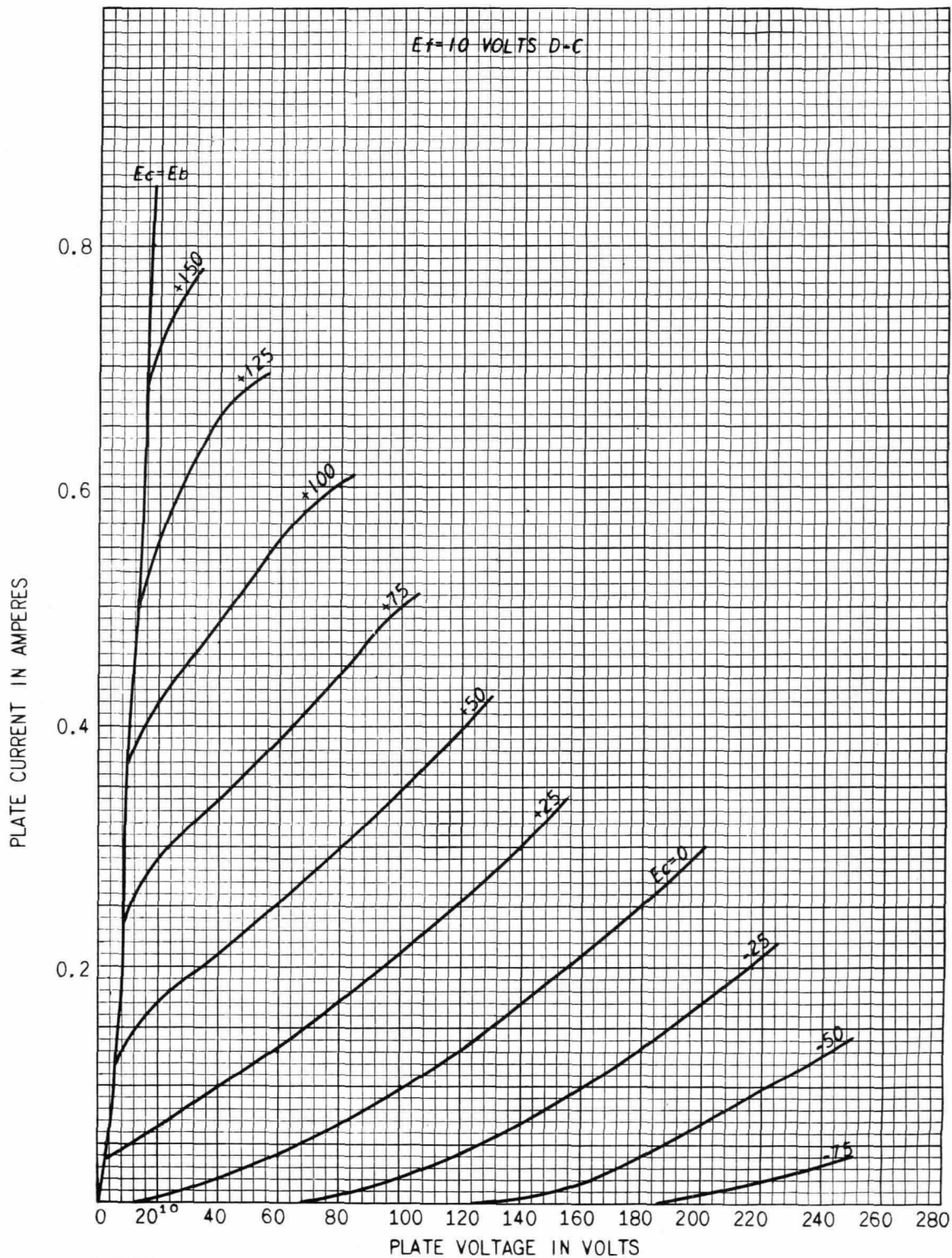
GL-152 PLATE-GRID TRANSFER CHARACTERISTICS

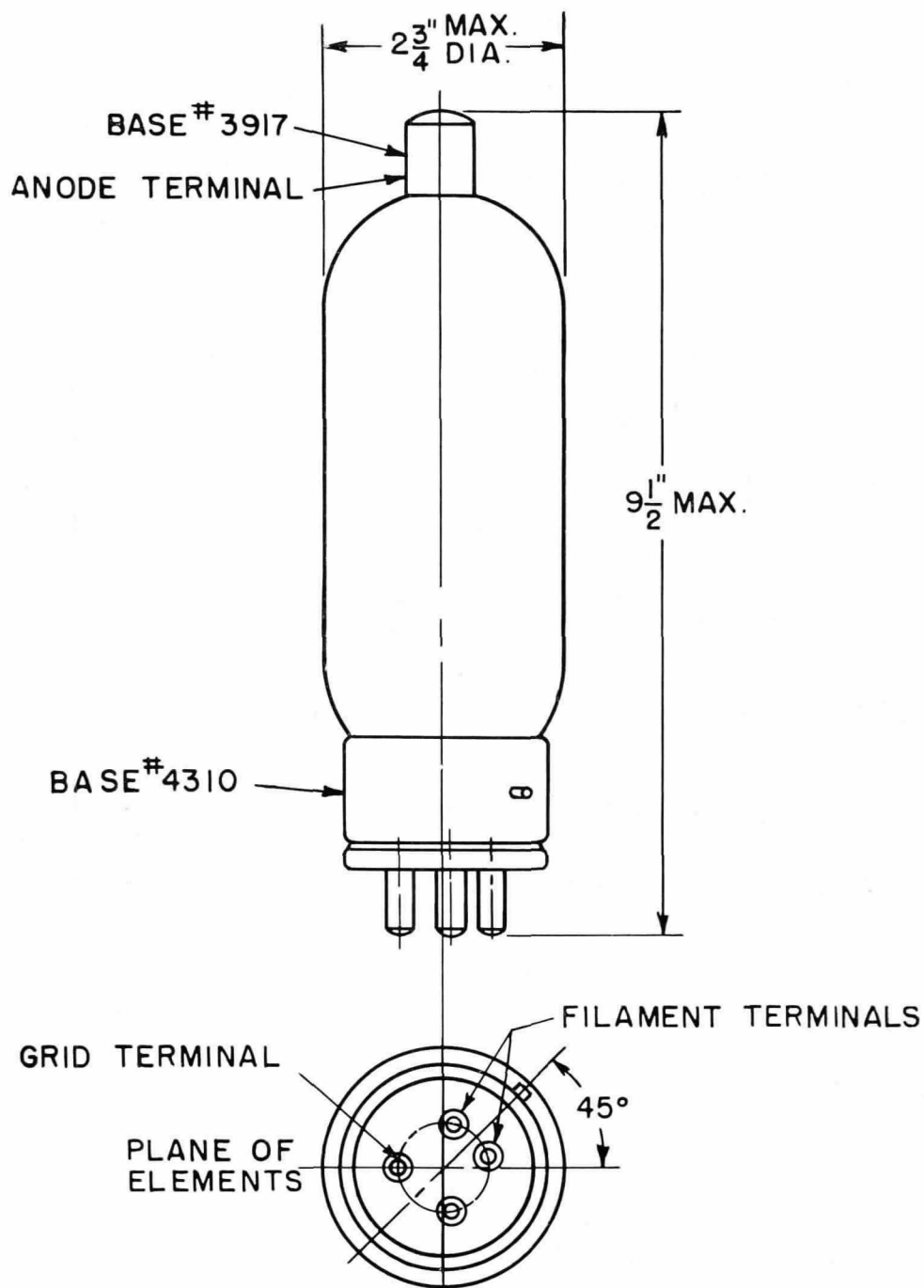


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GL-152 AVERAGE PLATE CHARACTERISTICS





GL-152 OUTLINE

Electronics Department
GENERAL ELECTRIC
Schenectady, N. Y.