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100TH
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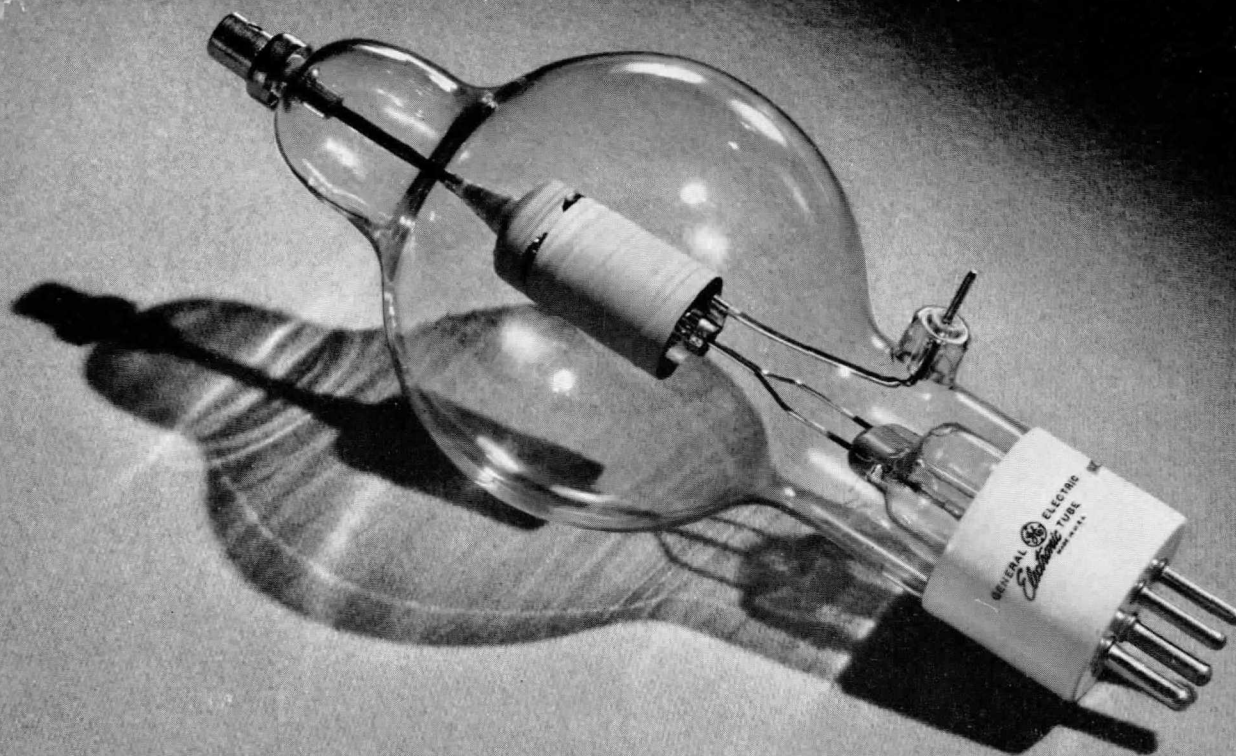
GL-100TH

DESCRIPTION
AND RATING

ETX-222

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TRIODE

DESCRIPTION

The GL-100TH is a three-electrode tube designed for use in Class B or C operation. The anode is capable of dissipating 100 watts, and cool-

ing is accomplished by radiation. The cathode is a thoriated-tungsten filament.

TECHNICAL INFORMATION

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

GENERAL

Electrical Data

Filament voltage	5.0	volts
Filament current	6.3	amperes
Amplification factor	40	
Interelectrode capacitances		
Grid-plate	2.0	micromicrofarads
Grid-filament	2.9	micromicrofarads
Plate-filament	0.4	micromicrofarad
Transconductance, $I_b = 200$ ma, $E_b = 3000$ v, $E_c = 15$ v	5500	micromhos

Mechanical Data

Net weight, approximate	4	ounces
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Electronic
TUBE

GENERAL  ELECTRIC

TECHNICAL INFORMATION (CONT'D)

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

AUDIO-FREQUENCY POWER AMPLIFIER AND MODULATOR—CLASS B

Maximum Ratings, Absolute Values

D-c plate voltage	3000 maximum	volts
Maximum signal d-c plate current†	225 maximum	milliamperes
Plate dissipation†	100 maximum	watts

Typical Operation

Unless otherwise specified, values are for two tubes

D-c plate voltage	1500	2000	3000	volts
D-c grid voltage	-20	-35	-65	volts
Peak a-f grid input voltage	290	310	335	volts
Zero signal d-c plate current	80	60	40	milliamperes
Maximum signal d-c plate current	320	280	215	milliamperes
Effective load resistance, plate to plate	8750	15000	31000	ohms
Maximum signal driving power, approximate	7	7	5	watts
Maximum signal power output, approximate	280	360	650	watts

PLATE-MODULATED RADIO-FREQUENCY POWER AMPLIFIER—CLASS C TELEPHONY

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

Maximum Ratings, Absolute Values

D-c plate voltage	3000 maximum	volts
D-c plate current	150 maximum	milliamperes
D-c grid current	60 maximum	milliamperes
Plate dissipation	67 maximum	watts

Typical Operation

D-c plate voltage	1500	2000	3000	volts
D-c grid voltage	-120	-160	-275	volts
Peak r-f grid voltage	270	300	425	volts
D-c plate current	138	117	122	milliamperes
D-c grid current, approximate	30	25	26	milliamperes
Plate dissipation	63	56	61	watts
Driving power, approximate	8	8	11	watts
Plate input	207	234	366	watts
Power output, approximate	144	178	305	watts

RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR—CLASS C TELEGRAPHY

Key-down conditions per tube without modulation¶

Maximum Ratings, Absolute Values

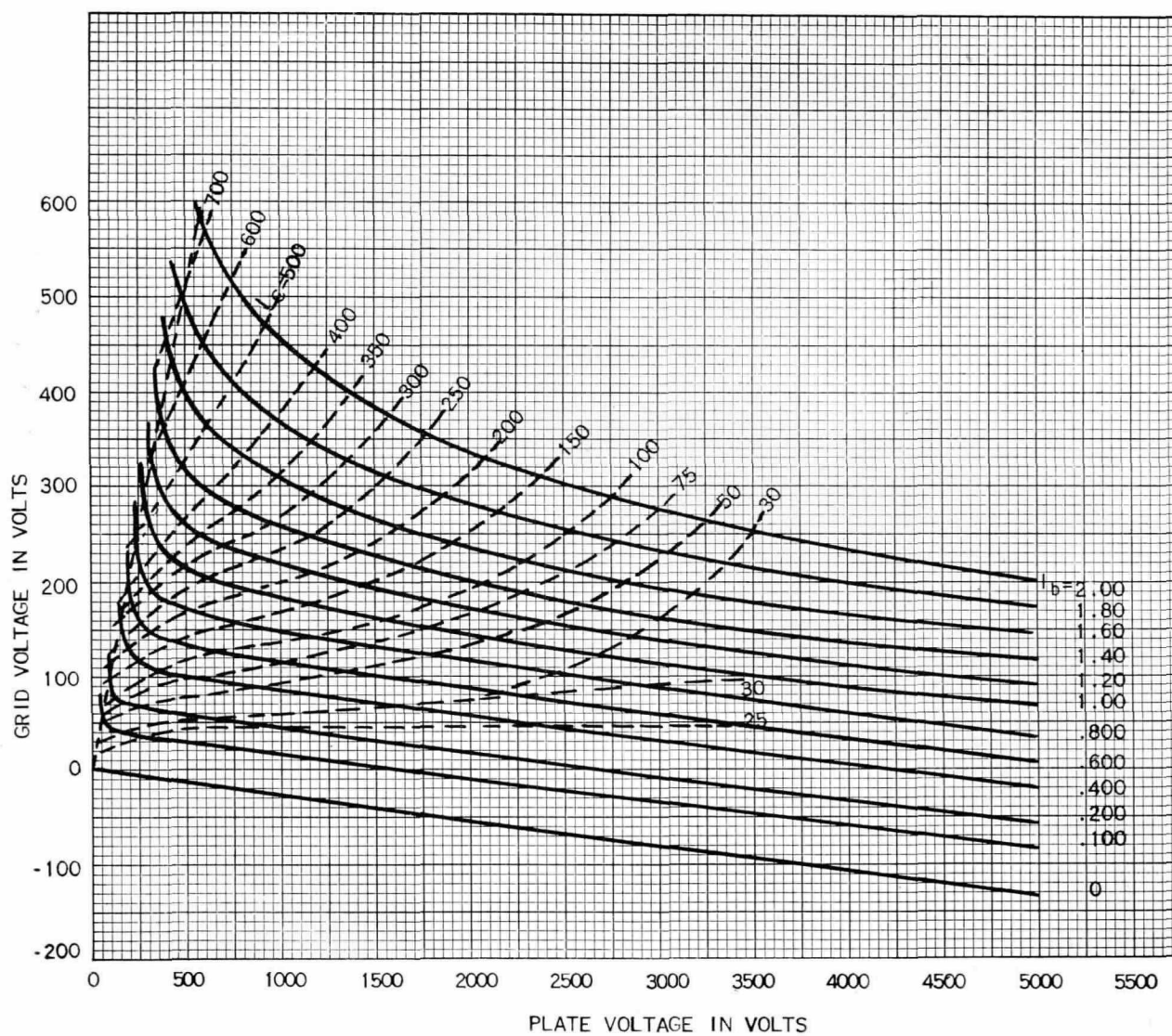
D-c plate voltage	3000 maximum	volts
D-c plate current	225 maximum	milliamperes
D-c grid current	60 maximum	milliamperes
Plate dissipation	100 maximum	watts

Typical Operation

D-c plate voltage	1500	2000	3000	volts
D-c grid voltage	-65	-80	-200	volts
Peak r-f grid voltage	230	230	385	volts
D-c plate current	190	165	165	milliamperes
D-c grid current, approximate	48	39	51	milliamperes
Plate dissipation	100	100	100	watts
Driving power, approximate	10	8	18	watts
Plate input	285	335	500	watts
Power output, approximate	185	235	400	watts

†Averaged over any audio-frequency cycle of sine-wave form.

¶Modulation essentially negative may be used if the positive peak of the envelope does not exceed 115 per cent of the carrier conditions.

GL-100TH
CONSTANT-CURRENT CHARACTERISTICS

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N-15088AZ

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Schenectady, N. Y.