BEAM POWER AMPLIFIER

DESCRIPTION

The GL-6005 is a miniature beam-power amplifier intended for use in medium-power audio-frequency applications. The tube is specially designed to assure dependable life and reliable service under the exacting conditions encountered in mobile and aircraft applications. Features include mechanical ruggedization and a heater-cathode construction designed to withstand many-thousand cycles of intermittent operation.

TECHNICAL INFORMATION

GENERAL

Electrical Data	
Cathode	Coated Unipotential
Heater Voltage (A-c or D-c)	6.3 Volts
Heater Current	0.45 Ampere
Mechanical Data	
Peak Impact Acceleration in Any Direction	600G
Vibrational Acceleration in Any Direction	2.5G
Bulb Temperature at Any Point	250C
Envelope	T-5½ Glass
Base	E7-1, Miniature Button 7-pin
Mounting Position	Any

GENERAL ELECTRIC

Electronic TUBE

TECHNICAL INFORMATION (CONT'D)

MAXIMUM RATINGS

ELECTRICAL (DESIGN CENTER VALUES)

Plate Voltage	250	Volts
Screen Voltage	250	Volts
Plate Dissipation	12	Watts
Screen Dissipation	2	Watts
Heater-Cathode Voltage	90	Volts
Grid Number 1 Circuit Resistance		
With Fixed Bias	0.1	Megohm
With Cathode Bias	0.5	Megohm

CHARACTERISTICS AND TYPICAL OPERATION

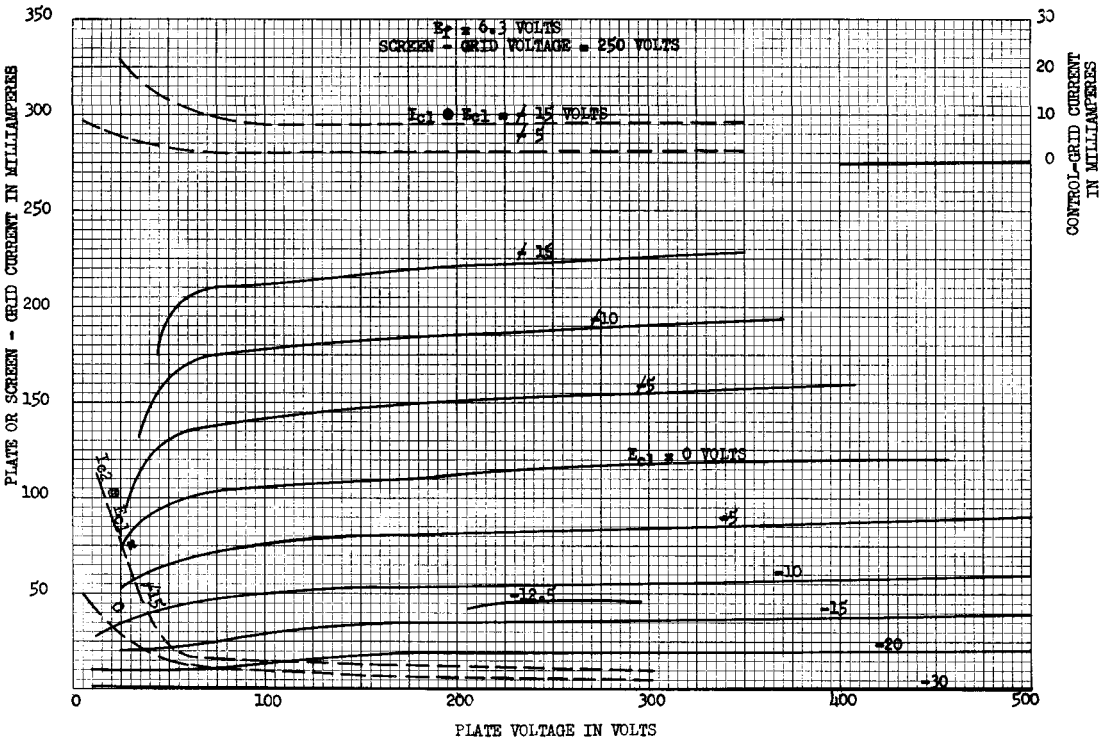
CLASS A_1 AMPLIFIER

Plate Voltage	180	250	Volts
Screen Voltage	180	250	Volts
Grid Number 1 Voltage	−8.5	−12.5	Volts
Peak A-F Grid Number 1 Voltage	8.5	12.5	Volts
Plate Resistance (Approx)	58000	52000	Ohms
Transconductance	3700	4100	Micromhos
Zero-Signal Plate Current	29	45	Milliamperes
Maximum-Signal Plate Current	30	47	Milliamperes
Zero-Signal Screen Current	3	4.5	Milliamperes
Maximum-Signal Screen Current	4	7	Milliamperes
Load Resistance	5500	5000	Ohms
Total Harmonic Distortion (Approx.)	8	8	Per Cent
Power Output	2.0	4.5	Watts

PUSH-PULL CLASS AB_1 AMPLIFIER (VALUES FOR TWO TUBES)

Plate Voltage	250	Volts
Screen Voltage	250	Volts
Grid Number 1 Voltage	−15	Volts
Peak A-F Grid-to-Grid Voltage	30	Volts
Plate Resistance (Each Tube)	60000	Ohms
Transconductance (Each Tube)	3750	Micromhos
Zero-Signal Plate Current	70	Milliamperes
Maximum-Signal Plate Current	79	Milliamperes
Zero-Signal Screen Current	5	Milliamperes
Maximum-Signal Screen Current	13	Milliamperes
Effective Load Resistance (Plate to Plate)	10000	Ohms
Total Harmonic Distortion	5	Per Cent
Maximum-Signal Power Output	10	Watts

AVERAGE PLATE CHARACTERISTICS
PENTODE CONNECTION



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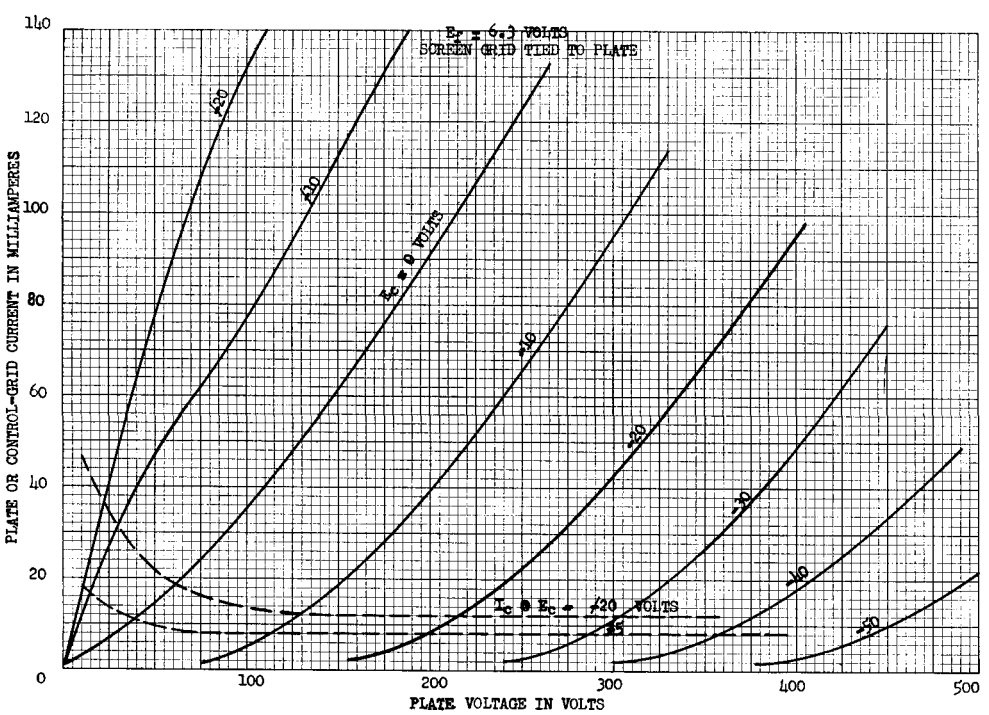
AVERAGE PLATE CHARACTERISTICS
TRIODE CONNECTION



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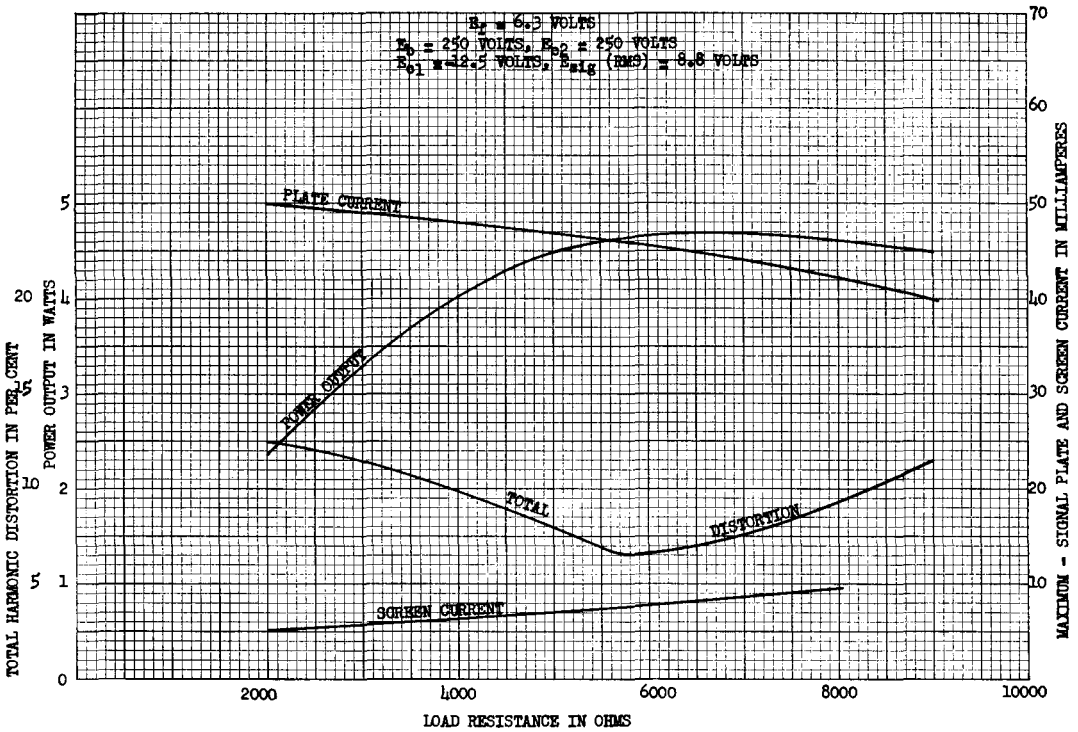
OPERATION CHARACTERISTICS
PENTODE CONNECTION



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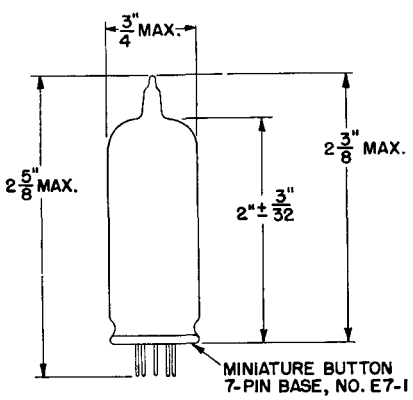
OUTLINE



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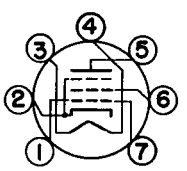
BASING DIAGRAM



7BZ

PIN 1 - GRID #1
PIN 2 - CATHODE AND GRID #3
PIN 3 - HEATER
PIN 4 - HEATER
PIN 5 - PLATE
PIN 6 - GRID #2 (SCREEN)
PIN 7 - GRID # 1

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