



70L7-GT

Description and Rating

RECTIFIER-BEAM POWER AMPLIFIER

GENERAL DESCRIPTION

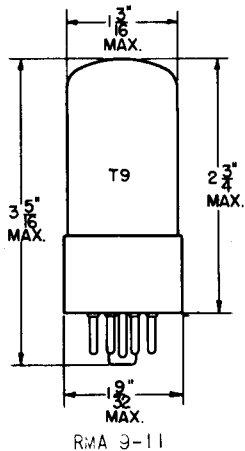
Principal Application: The 70L7-GT is a glass type tube containing a half-wave rectifier and a beam power amplifier in the same envelope. The 70L7-GT

is intended for use as the power rectifier and power amplifier tube in circuits requiring series heater operation.

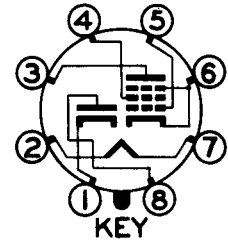
Cathode: Coated Unipotential
 Heater Voltage (A-C or D-C) 70.0 Volts
 Heater Current 0.15 Amperes

Envelope: T-9 Glass
 Base: B8-6 Intermediate Shell Octal 8-Pin, Phenolic
 Mounting Position: Any

PHYSICAL DIMENSIONS



BASING DIAGRAM



RMA 8AA

BOTTOM VIEW

TERMINAL CONNECTIONS

- Pin 1 - Rectifier Cathode
- Pin 2 - Heater
- Pin 3 - Amplifier Plate
- Pin 4 - Amplifier Screen
- Pin 5 - Amplifier Grid
- Pin 6 - Amplifier Cathode
- Pin 7 - Heater
- Pin 8 - Rectifier Plate

MAXIMUM RATINGS

AMPLIFIER UNIT	Design Center		Absolute	
Plate Voltage	117	129		Volts
Screen Voltage	117	129		Volts
Plate Dissipation	5.0	5.5		Watts
Screen Dissipation	1.0	1.1		Watts

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A1 AMPLIFIER

Plate Voltage	110		Volts
Screen Voltage	110		Volts
Grid Voltage*	-7.5		Volts
Peak A-F Grid Voltage	7.5		Volts
Zero-Signal Plate Current	40		Milliamperes
Zero-Signal Screen Current (Approximate)	3		Milliamperes
Maximum-Signal Plate Current	43		Milliamperes

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Maximum-Signal Screen Current (Approximate)	6	Milliamperes
Plate Resistance	15000	Ohms
Transconductance	7500	Micromhos
Load Resistance	2000	Ohms
Total Harmonic Distortion	10	Per Cent
Maximum-Signal Power Output	1.8	Watts

RATINGS AND CHARACTERISTICS

RECTIFIER UNIT

Design Center Absolute

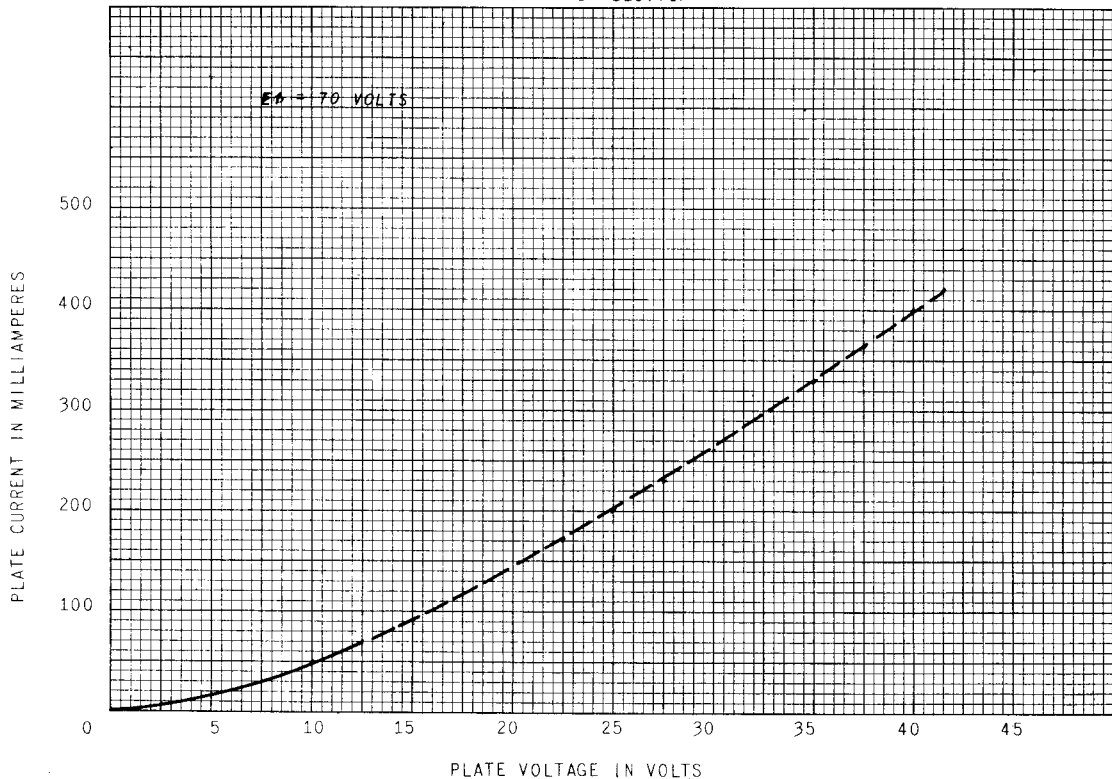
Maximum Peak Inverse Plate Voltage	350	365	Volts
Maximum Peak Plate Current	420	462	Milliamperes
Maximum D-C Heater-Cathode Voltage	175	193	Volts
Maximum A-C Plate Voltage (RMS)	117	129	Volts
Minimum Total Effective Plate-Supply Impedance#	15	17	Ohms
Maximum D-C Output Current	70	77	Milliamperes

* The type of input coupling used should not introduce too much resistance in the grid circuit. Transformer-or impedance-coupling devices are recommended. When the grid circuit has a resistance not higher than 0.1 megohm, fixed bias may be used; for higher values, cathode bias is required. With cathode bias, the grid circuit may have a resistance not higher than 0.5 megohm.

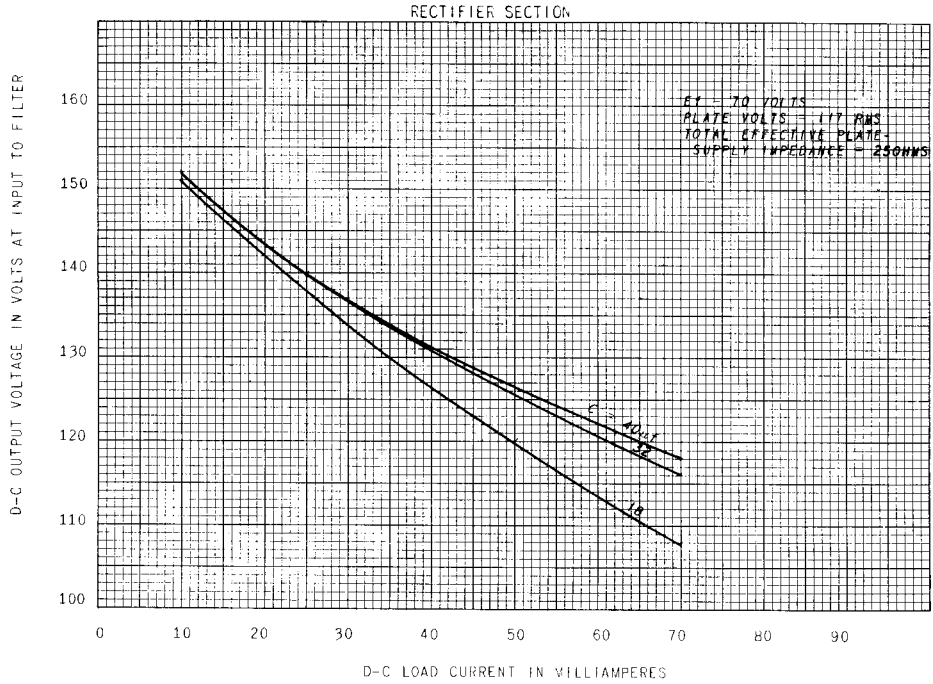
When a filter-input capacitor larger than 40 microfarads is used, it may be necessary to use more plate-supply impedance than the minimum value shown to limit the peak plate current to the rated value.

AVERAGE PLATE CHARACTERISTICS

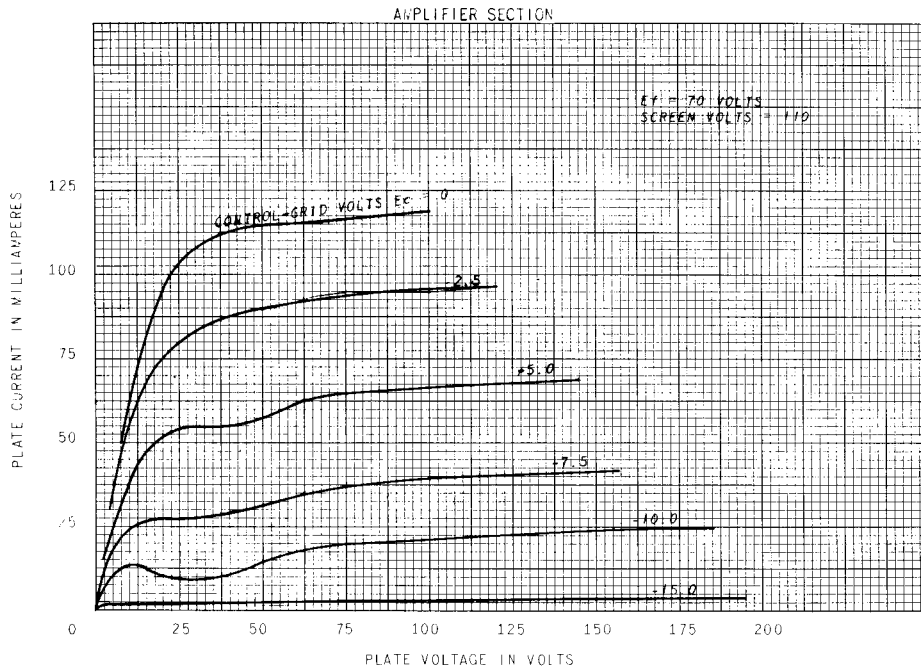
RECTIFIER SECTION



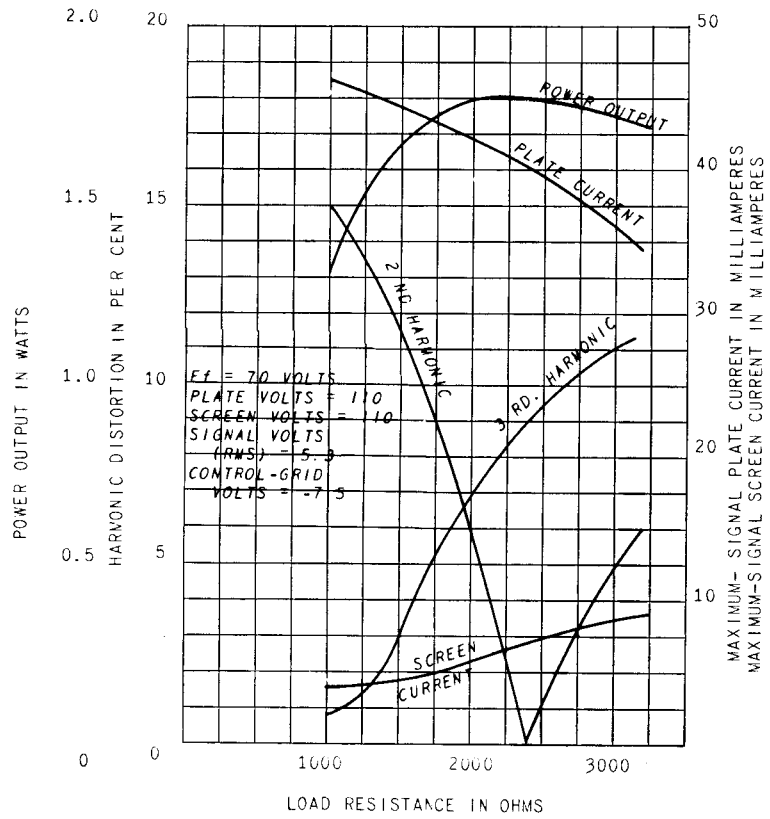
OPERATION CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



OPERATION CHARACTERISTICS
AMPLIFIER SECTION



Electronics Department

GENERAL ELECTRIC

Schenectady, N. Y.