

41

Description and Rating

POWER-AMPLIFIER PENTODE

GENERAL DESCRIPTION

Principal Application: The 41 is a heater-cathode type power-amplifier pentode tube designed for service in the output stage of a-c or battery-operated receivers. More than one audio stage preceding

the 41 is not recommended because of the possibility of microphonic disturbances resulting from the high level of amplification. Electrically the 41 and 6K6-GT are identical.

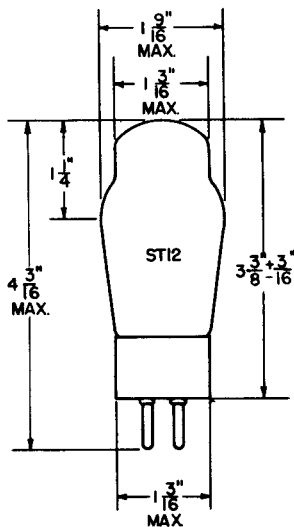
Cathode: Coated Unipotential
 Heater Voltage (A-C or D-C) 6.3 Volts
 Heater Current 0.4 Ampere
 Envelope: ST-12 Glass
 Base: A6-7 Small 6-Pin Phenolic

Mounting Position: Any
 Direct Interelectrode Capacitances: *
 Grid Number 1 to Plate 0.5 $\mu\mu\text{f}$
 Input 5.5 $\mu\mu\text{f}$
 Output 6.0 $\mu\mu\text{f}$

PHYSICAL DIMENSIONS

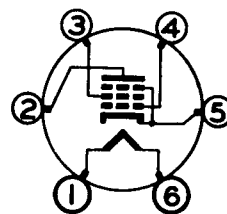
TERMINAL CONNECTIONS

BASING DIAGRAM



RMA 12-5

- Pin 1 - Heater
- Pin 2 - Plate
- Pin 3 - Grid No. 2 (Screen)
- Pin 4 - Grid Number 1
- Pin 5 - Cathode and Grid No. 3
- Pin 6 - Heater



RMA 6B
BOTTOM VIEW

MAXIMUM RATINGS

	Design Center	Absolute	
Plate Voltage	315	345	Volts
Screen (Grid Number 2) Voltage	285	315	Volts
Screen Supply Voltage	315	345	Volts
Plate Dissipation	8.5	9.4	Watts
Screen Dissipation	2.8	3.1	Watts
D-C heater-Cathode Voltage	90	100	Volts

* Approximate values without external shield.

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A AMPLIFIER

Heater Voltage (A-C or D-C)	6.3	6.3	6.3	Volts
Plate Voltage	100	250	315	Volts
Screen (Grid No. 2) Voltage	100	250	285	Volts
Grid Bias Voltage **	-7	-18	-21	Volts
Peak A-F Grid Voltage	7	18	21	Volts
Zero-Signal Plate Current	9	32	25.5	Milliamperes
Zero-Signal Screen Current	1.6	5.5	4.0	Milliamperes
Maximum-Signal Plate Current	9.5	33	28	Milliamperes
Maximum-Signal Screen Current	3	10	9	Milliamperes
Plate Resistance	104000	88000	75000	Ohms
Transconductance	1500	2300	2100	Micromhos
Load Resistance	12000	7600	9000	Ohms
Total Harmonic Distortion	11	11	15	Per Cent
Maximum-Signal Power Output	0.35	3.4	4.5	Watts

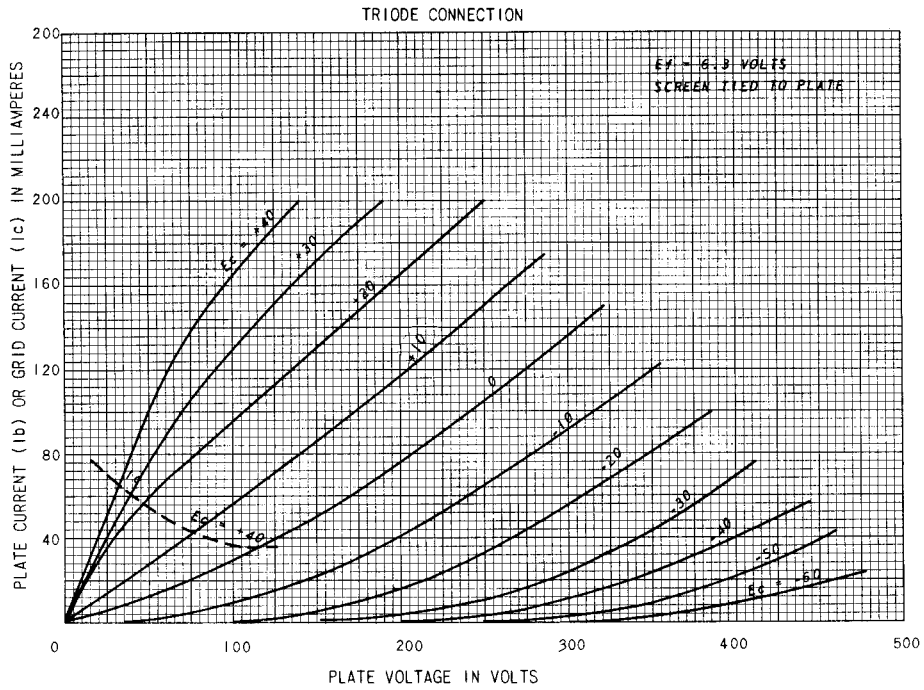
PUSH-PULL CLASS A AMPLIFIER ^o

	Fixed Bias	Self Bias	
Heater Voltage (A-C or D-C)	6.3	6.3	Volts
Plate Voltage	285	285	Volts
Screen (Grid Number 2) Voltage	285	285	Volts
Grid Bias Voltage **	-25.5	---	Volts
Self Bias Cathode Resistor	---	400	Ohms
Peak A-F Grid to Grid Voltage	51	51	Volts
Zero-Signal Plate Current	55	55	Milliamperes
Zero-Signal Screen Current	9	9	Milliamperes
Maximum-Signal Plate Current	72	61	Milliamperes
Maximum-Signal Screen Current	17	13	Milliamperes
Load Resistance (Plate to Plate)	12000	12000	Ohms
Total Harmonic Distortion	6	4	Per Cent
Maximum-Signal Power Output	10.5	9.8	Watts

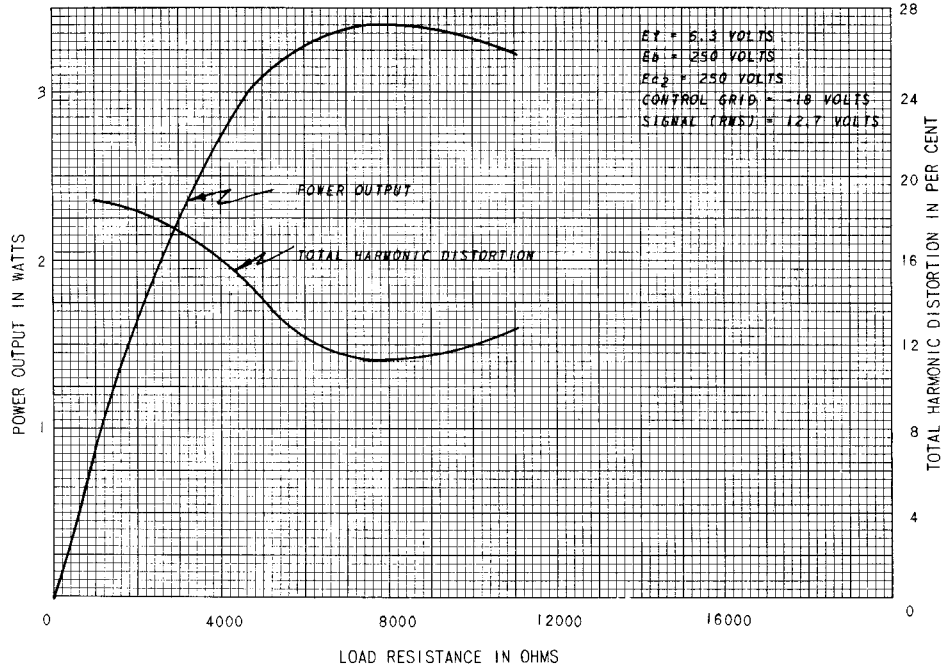
** Transformer- or impedance-type input coupling devices are recommended to minimize resistance in the grid circuit. The d-c resistance, in the grid circuit, under rated maximum conditions, should not exceed 0.1 megohm with fixed bias or 0.5 megohm with cathode bias.

^o Values are for two tubes unless otherwise stated.

AVERAGE PLATE CHARACTERISTICS

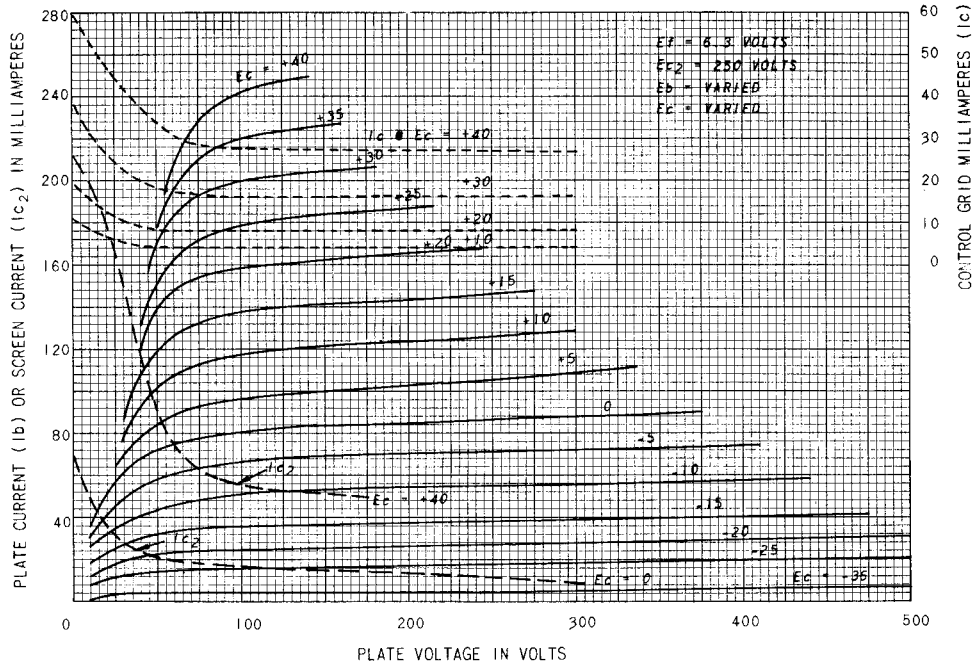


OPERATION CHARACTERISTICS



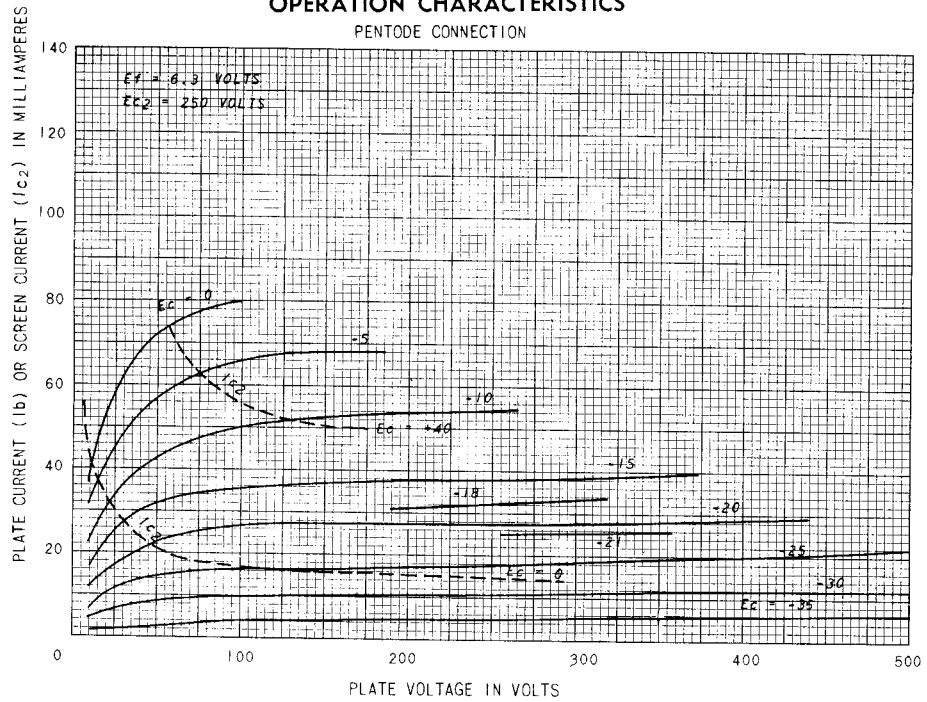
AVERAGE CHARACTERISTICS

PENTODE CONNECTION



OPERATION CHARACTERISTICS

PENTODE CONNECTION



Electronics Department



Schenectady, N. Y.