Electronic TUBE

KEN-RAD

7C5

Description and Rating

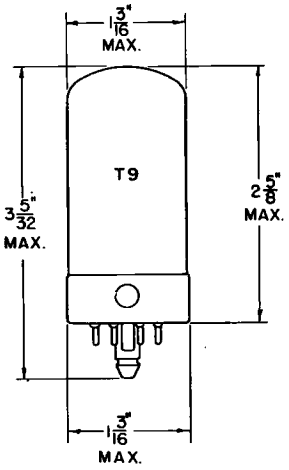
BEAM POWER AMPLIFIER

GENERAL DESCRIPTION

Principal Application: The 7C5 is a beam power amplifier tetrode designed for service in the output stage of a-c or battery-operated equipment. It is capable of supplying high power output, power sensitivity, and efficiency with low percentages of third and higher order harmonics.

Cathode:	Coated Unipotential
Heater Voltage (A-C or D-C)	6.3 Volts
Heater Current	0.45 Ampere
Envelope:	T-9 Glass
Base:	B8-1 Locking-In 8-Pin
Mounting Position:	Any

PHYSICAL DIMENSIONS

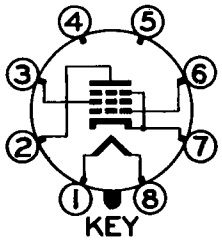


RMA 9-31

TERMINAL CONNECTIONS

Pin 1 - Heater
Pin 2 - Plate
Pin 3 - Grid Number 2
Pin 4 - No Connection
Pin 5 - No Connection
Pin 6 - Grid Number 1
Pin 7 - Cathode and Beam Plates
Plug - Base Shell

BASING DIAGRAM



RMA 6AA
BOTTOM VIEW

MAXIMUM RATINGS

DESIGN CENTER VALUES:

Plate Voltage	315	Volts
Grid Number 2 (Screen) Voltage	285	Volts
Screen Supply Voltage	315	Volts
Plate Dissipation	12	Watts
Screen Dissipation	2.0	Watts
D-C Heater-Cathode Voltage	90	Volts

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A AMPLIFIER:

Plate Voltage	180	250	315	Volts
Screen Voltage	180	250	285	Volts
Grid Bias Voltage *	-8.5	-12.5	-13	Volts
Peak A-F Grid Voltage	8.5	12.5	13	Volts
Plate Resistance (Approximate)	58000	52000	77000	Ohms
Transconductance	3700	4100	3750	Micromhos
Zero-Signal Plate Current	29	45	34	Milliamperes
Maximum-Signal Plate Current	30	47	35	Milliamperes

Continued on page 2.

CHARACTERISTICS AND TYPICAL OPERATION

Zero-Signal Screen Current (Approximate)	3	4.5	2.2	Milliamperes
Maximum-Signal Screen Current (Approximate)	4	7	6	Milliamperes
Load Resistance	5500	5000	8500	Ohms
Total Harmonic Distortion	8	8	12	Per Cent
Maximum-Signal Power Output	2	4.5	5.5	Watts

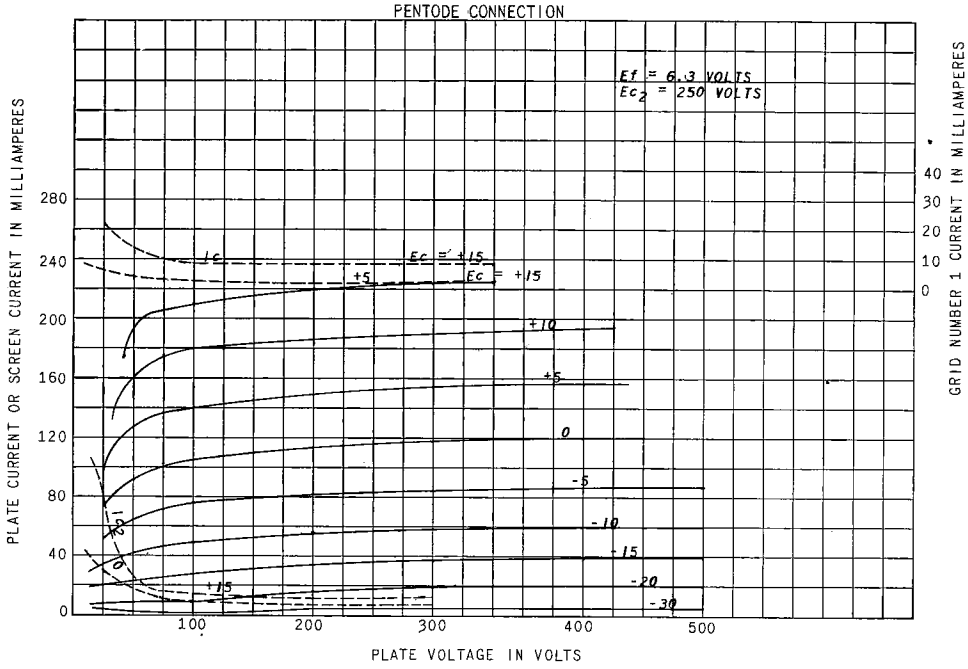
CLASS AB_1 PUSH-PULL AMPLIFIER: **

Plate Voltage	250	285	Volts
Screen Voltage	250	285	Volts
Grid Bias Voltage *	-15	-19	Volts
Peak A-F Grid-to-Grid Voltage	30	38	Volts
Plate Resistance (Approximate)	60000	65000	Ohms
Transconductance	3750	3600	Micromhos
Zero-Signal Plate Current	70	70	Milliamperes
Maximum-Signal Plate Current	79	92	Milliamperes
Zero-Signal Screen Current (Approximate)	5	4	Milliamperes
Maximum-Signal Screen Current (Approximate)	13	13.5	Milliamperes
Effective Load Resistance (Plate to Plate)	10000	8000	Ohms
Total Harmonic Distortion	5	3.5	Per Cent
Maximum-Signal Power Output	10	14	Watts

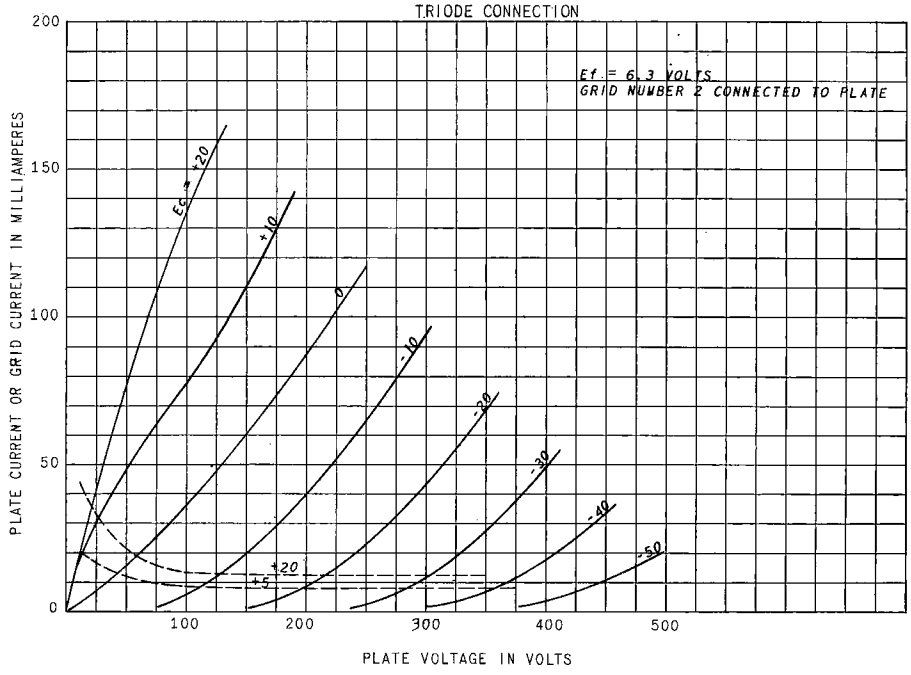
* *The d-c resistance in the grid circuit, under maximum rated conditions, should not exceed 0.1 megohm for fixed-bias operation and 0.5 megohm for cathode-bias operation.*

** *Unless otherwise indicated the values given are for two tubes.*

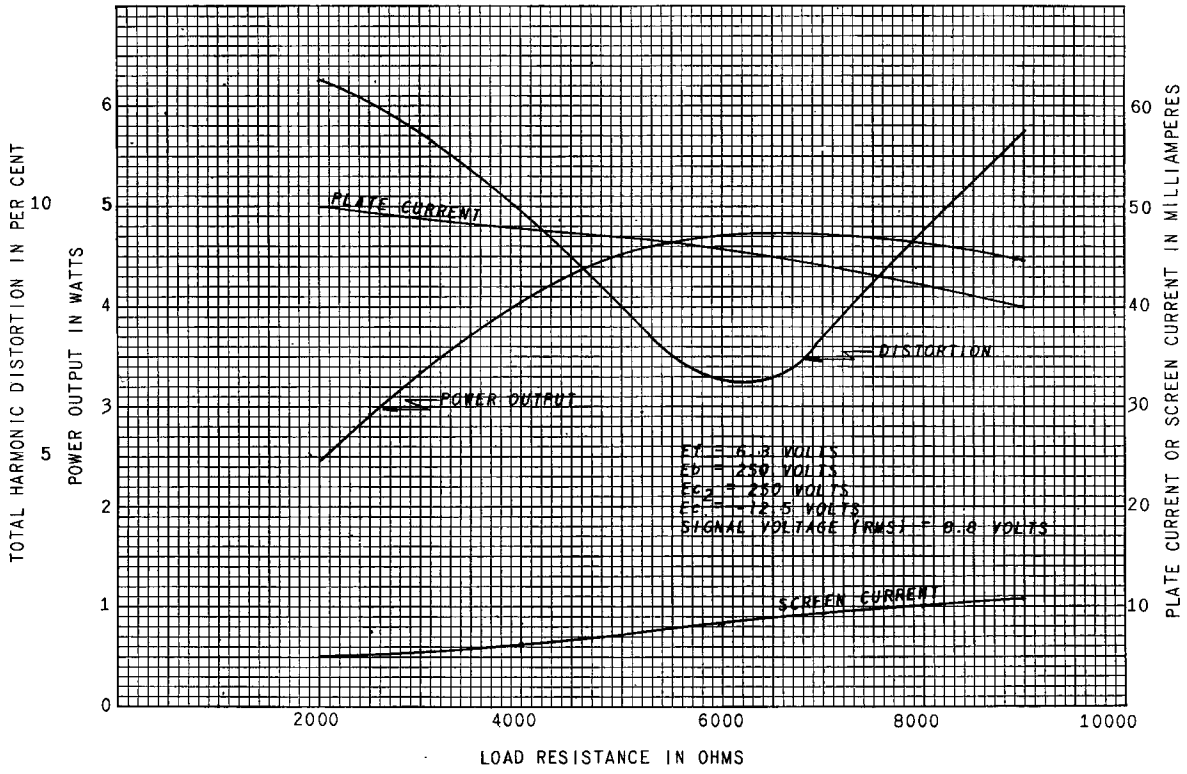
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



OPERATION CHARACTERISTICS



Electronics Department

GENERAL ELECTRIC

Schenectady, N. Y.