



# 50A5

## Description and Rating

### BEAM POWER AMPLIFIER

#### GENERAL DESCRIPTION

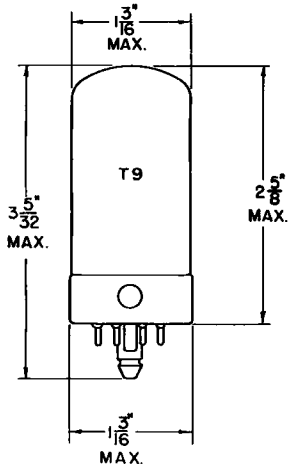
Principal Application: The 50A5 is a beam power amplifier designed primarily for use in the output stage of a-c/d-c receivers. The 50A5 features high

power sensitivity and high efficiency when operated at relatively low plate and screen voltages.

Cathode . . . . . Coated Unipotential  
 Heater Voltage (A-C or D-C) . . . . . 50.0 Volts  
 Heater Current . . . . . 0.15 Ampere

Envelope . . . . . T-9, Glass  
 Base . . . . . D8-1, Locking-in 8-Pin  
 Mounting Position . . . . . Any

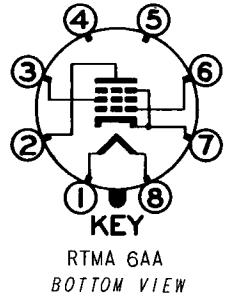
#### PHYSICAL DIMENSIONS



#### TERMINAL CONNECTIONS

- Pin 1 - Heater
- Pin 2 - Plate
- Pin 3 - Grid Number 2 (Screen)
- Pin 4 - No Connection
- Pin 5 - No Connection
- Pin 6 - Grid Number 1
- Pin 7 - Cathode and Beam Plates
- Pin 8 - Heater

#### BASING DIAGRAM



#### DESIGN CENTER VALUES

Plate Voltage . . . . .	200	Volts
Screen Voltage . . . . .	125	Volts
Plate Dissipation . . . . .	10	Watts
Screen Dissipation . . . . .	1.25	Watts
Grid Number 1 Circuit Resistance:		
With Fixed Bias . . . . .	0.1	Megohm
With Cathode Bias . . . . .	0.5	Megohm

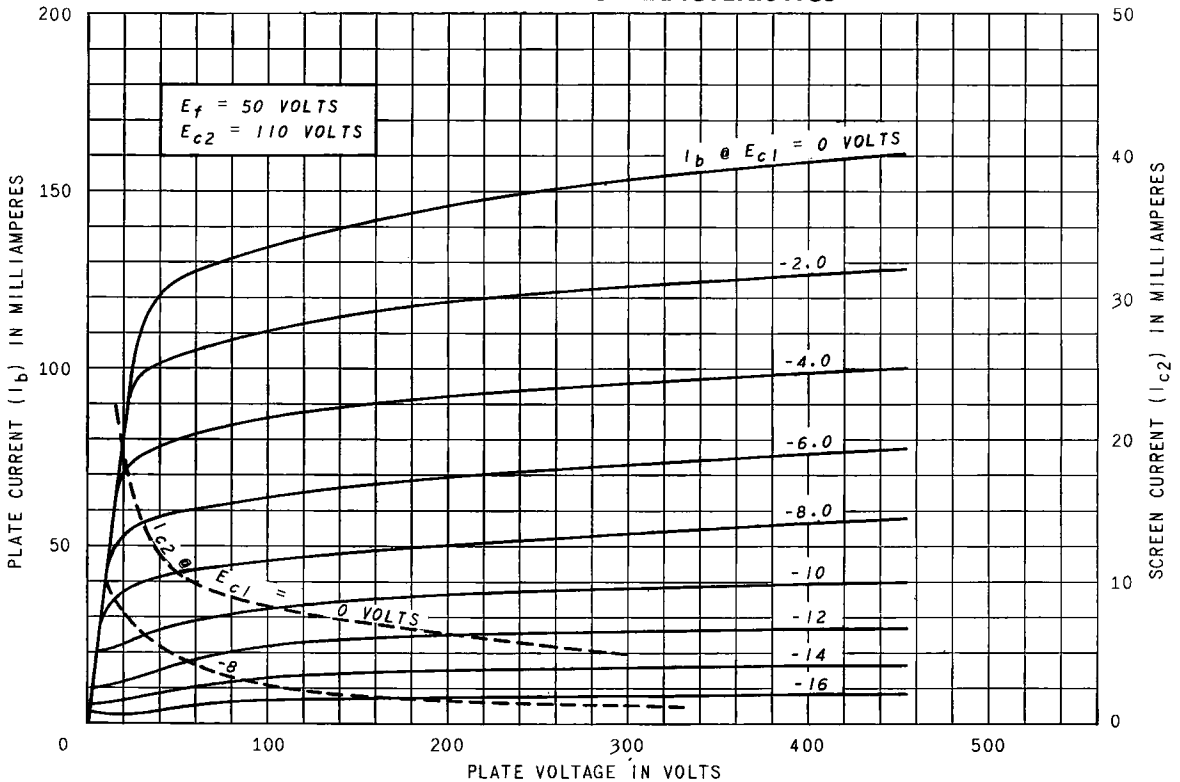
#### MAXIMUM RATINGS

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A<sub>1</sub> AMPLIFIER

Plate Voltage . . . . .	110	200		Volts
Screen Voltage . . . . .	110	125		Volts
Grid Number 1 Voltage . . . . .	-7.5	---		Volts
Cathode Bias Resistor . . . . .	---	180		Ohms
Peak A-F Grid Number 1 Voltage . . . . .	7.5	8.5		Volts
Plate Resistance (Approx) . . . . .	13000	28000		Ohms
Transconductance . . . . .	8000	8000		Micromhos
Zero-Signal Plate Current . . . . .	49	46		Milliamperes
Maximum-Signal Plate Current (Approx) . . . . .	50	47		Milliamperes
Zero-Signal Screen Current . . . . .	4.0	2.2		Milliamperes
Maximum-Signal Screen Current (Approx) . . . . .	10	8.5		Milliamperes
Load Resistance . . . . .	2000	4000		Ohms
Total Harmonic Distortion (Approx) . . . . .	10	10		Per Cent
Power Output . . . . .	2.1	3.8		Watts

AVERAGE PLATE CHARACTERISTICS



TUBE DEPARTMENT



Schenectady 5, N. Y.