

DESCRIPTION AND RATING

The 5AU4 is a filamentary full-wave high-vacuum rectifier designed for use in the power supply of television receivers and other equipments which have high output current requirements. In full-wave operation with a supply voltage of 300 volts RMS, the 5AU4 is capable of delivering a d-c output current of 350 milliamperes.

GENERAL

Cathode—Coated Filament
Filament Voltage, AC or DC..... 5.0 Volts
Filament Current..... 3.75 Amperes
Envelope—T-12, Glass
Base—B8-114, Octal 8-Pin
Mounting Position—Vertical*

MAXIMUM RATINGS

RECTIFIER SERVICE†—DESIGN-CENTER VALUE‡
Peak Inverse Plate Voltage..... 1400 Volts
AC Plate-Supply Voltage per Plate—See Rating Chart 1§
Steady-State Peak Plate Current per Plate..... 1075 Milliamperes
Transient Peak Plate Current per Plate,
Maximum Duration 0.2 Second..... 5.25 Amperes
DC Output Current—See Rating Chart 1§

CHARACTERISTICS AND TYPICAL OPERATION

FULL-WAVE RECTIFIER WITH CAPACITOR-INPUT FILTER

AC Plate-Supply Voltage per Plate, RMS.....	300	400	Volts
Filter Input Capacitor.....	40	40	Microfarads
Total Plate-Supply Resistance per Plate.....	30	50	Ohms
DC Output Current.....	350	325	Milliamperes
DC Output Voltage at Filter Input.....	275	395	Volts

FULL-WAVE RECTIFIER WITH CHOKE-INPUT FILTER

AC Plate-Supply Voltage per Plate, RMS.....	500	Volts
Filter Input Choke.....	10	Henrys
DC Output Current.....	325	Milliamperes
DC Output Voltage at Filter Input.....	395	Volts

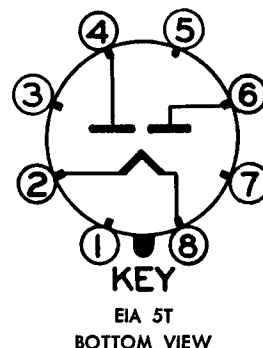
AVERAGE CHARACTERISTICS

Tube Voltage Drop
 $I_b = 350$ Milliamperes DC per Plate..... 50 Volts

GENERAL  ELECTRIC

Δ Supersedes page 1 dated 2-54

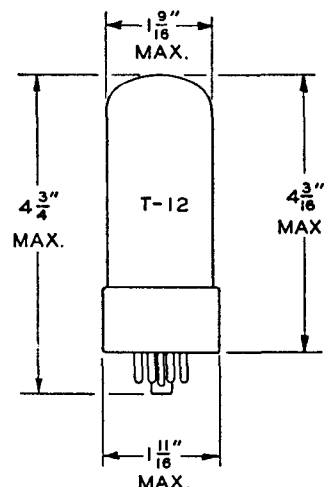
BASING DIAGRAM



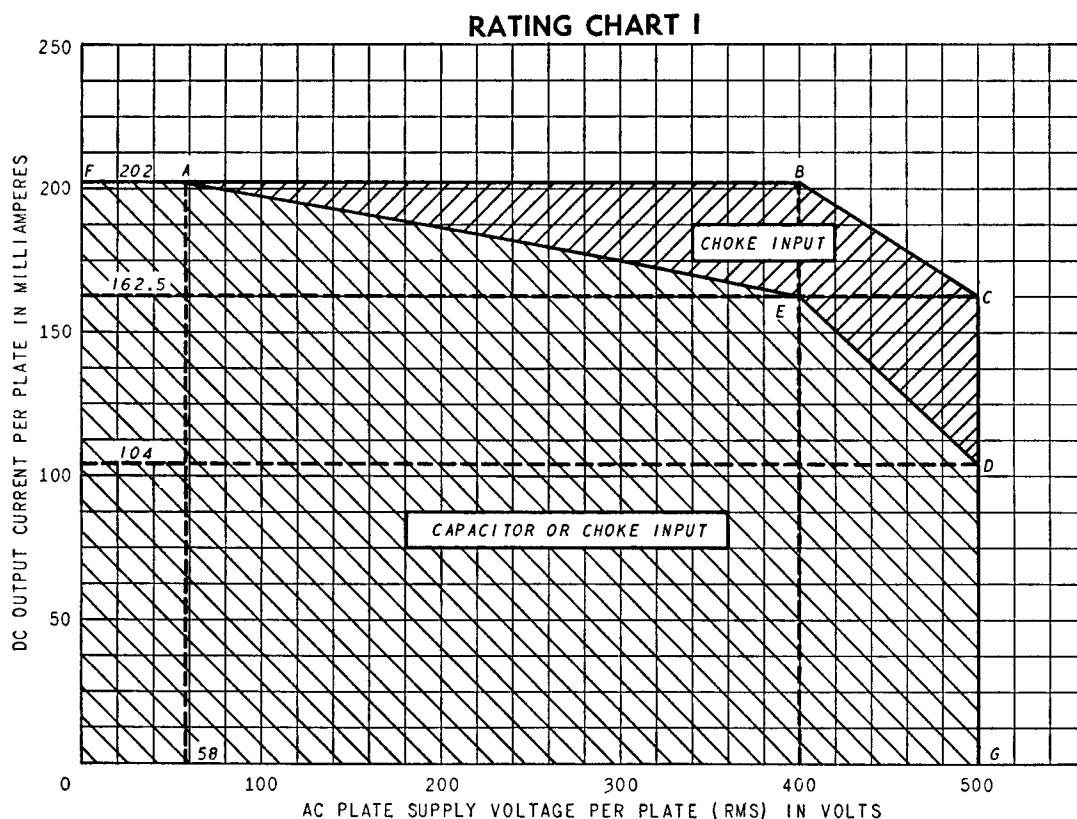
TERMINAL CONNECTIONS

Pin 1—No Connection
Pin 2—Filament
Pin 3—No Connection
Pin 4—Plate Number 2
Pin 5—No Connection
Pin 6—Plate Number 1
Pin 7—No Connection
Pin 8—Filament

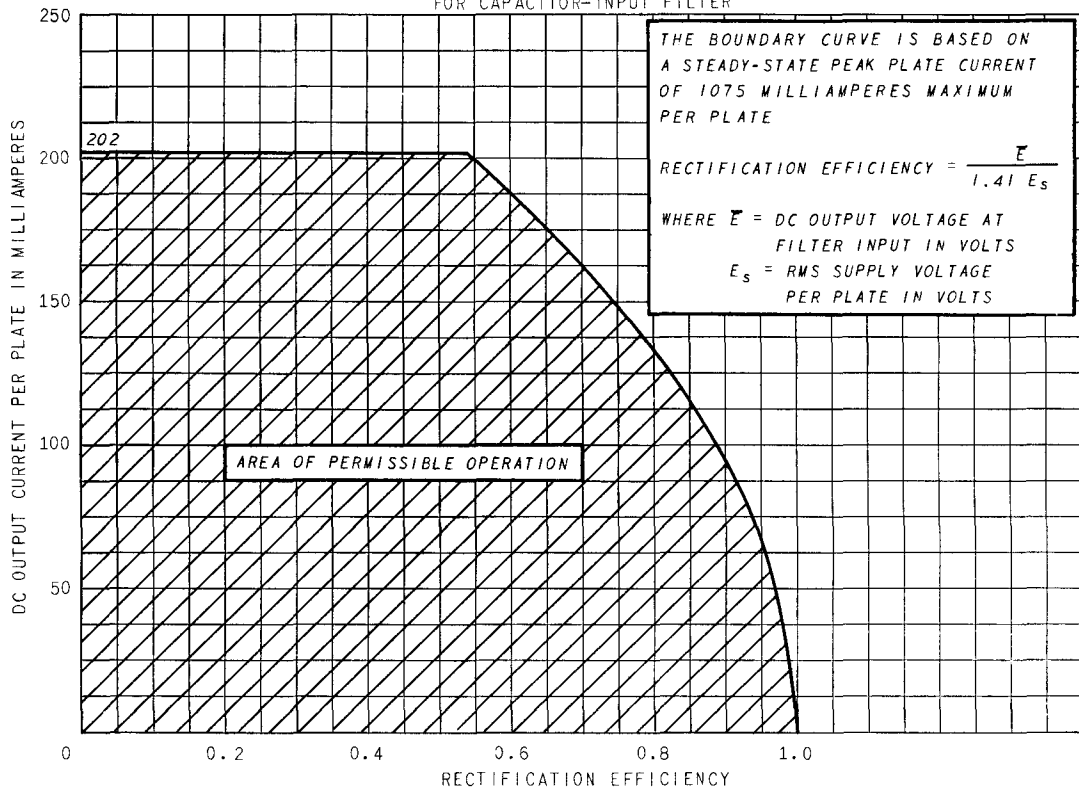
PHYSICAL DIMENSIONS



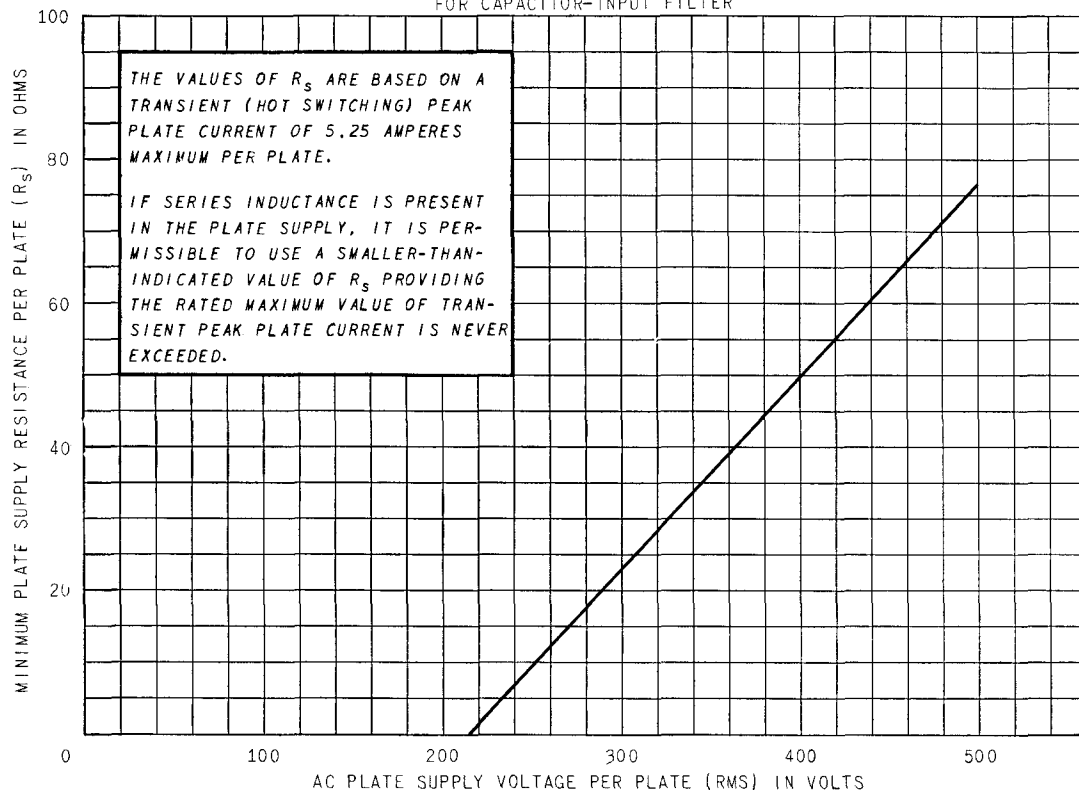
- * Horizontal operation is permitted if pins 2 and 4 are in a vertical plane.
- † For use with sinusoidal supply voltages within the frequency range of 25 to 1000 cycles per second.
- ‡ To simplify the application of the maximum ratings to circuit design, the electrical design-center maximum ratings are also presented in chart form as Rating Charts I, II, and III. Rating Chart I presents the maximum ratings for a-c plate supply voltage and d-c output current. Rating Chart II provides a convenient method for checking conformance with the maximum steady-state peak-plate-current rating. Rating Chart III offers a convenient method for checking conformance with the maximum transient peak-plate-current rating.
- § With a capacitor-input filter, the conditions of each of Rating Charts I, II, and III must be satisfied in order to obtain performance within all of the appropriate electrical maximum ratings. With a choke-input filter, operation within the indicated boundary of Rating Chart I will assure performance within all of the appropriate electrical maximum ratings.
- § The maximum ratings for a-c plate supply voltage and d-c output current are interrelated and are also dependent on whether a choke- or capacitor-input filter is employed. This relationship is shown in Rating Chart I. With a capacitor-input filter, the operating point of d-c output current and a-c supply voltage must fall within the curve FAEDG. With a choke-input filter, the operating point must fall within the curve FABCDG.



RATING CHART II
FOR CAPACITOR-INPUT FILTER

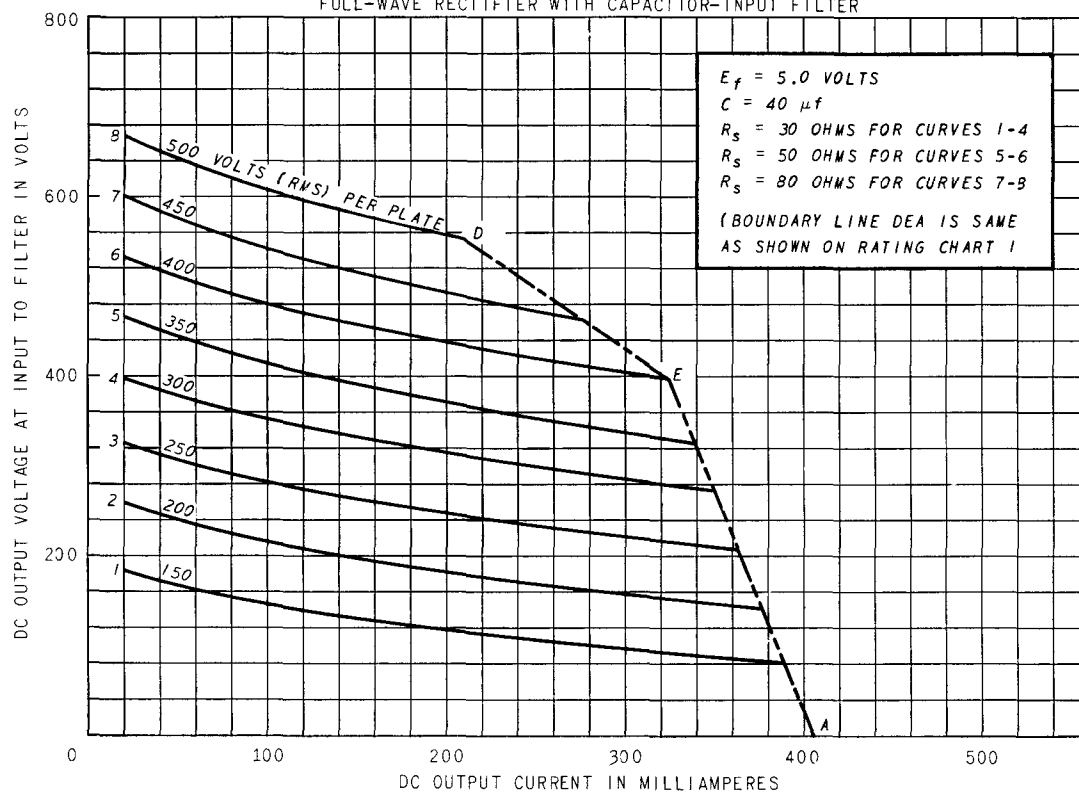


RATING CHART III
FOR CAPACITOR-INPUT FILTER



OPERATION CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CAPACITOR-INPUT FILTER



OPERATION CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CHOKE-INPUT FILTER

