

**5Y3-GT****TWIN DIODE****FOR FULL-WAVE POWER RECTIFIER APPLICATIONS****5Y3-GT**
ET-T965
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DESCRIPTION AND RATING

The 5Y3-GT is a filamentary twin-diode designed for full-wave rectifier operation in power supplies that have d-c output current requirements up to approximately 125 milliamperes.

GENERAL**ELECTRICAL**

Cathode—Coated Filament

Filament Voltage, AC or DC..... 5.0 Volts

Filament Current..... 2.0 Amperes

MECHANICAL

Mounting Position—Vertical*

Envelope—T-9, Glass

Base—B5-10, Intermediate Shell Octal 5-Pin

or B5-62, Short Intermediate Shell Octal 5-Pin

MAXIMUM RATINGS**RECTIFIER SERVICE—DESIGN-CENTER VALUES†**

Peak Inverse Plate Voltage..... 1400 Volts

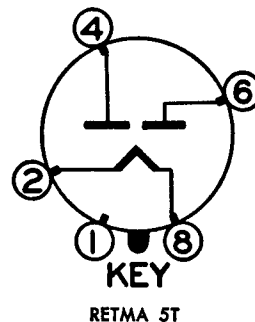
AC Plate-Supply Voltage per Plate—See Rating Chart 1‡

Steady-State Peak Plate Current per Plate..... 440 Milliamperes

Transient Peak Plate Current per Plate, Maximum Duration 0.2

Second..... 2.5 Amperes

DC Output Current—See Rating Chart 1‡

BASING DIAGRAM**TERMINAL CONNECTIONS**

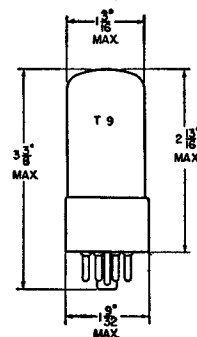
Pin 1—No Connection

Pin 2—Filament

Pin 4—Plate Number 2

Pin 6—Plate Number 1

Pin 8—Filament

PHYSICAL DIMENSIONS

RETMA 9-13 OR 9-42

GENERAL  ELECTRIC

Supersedes ET-T250B, dated 6-50

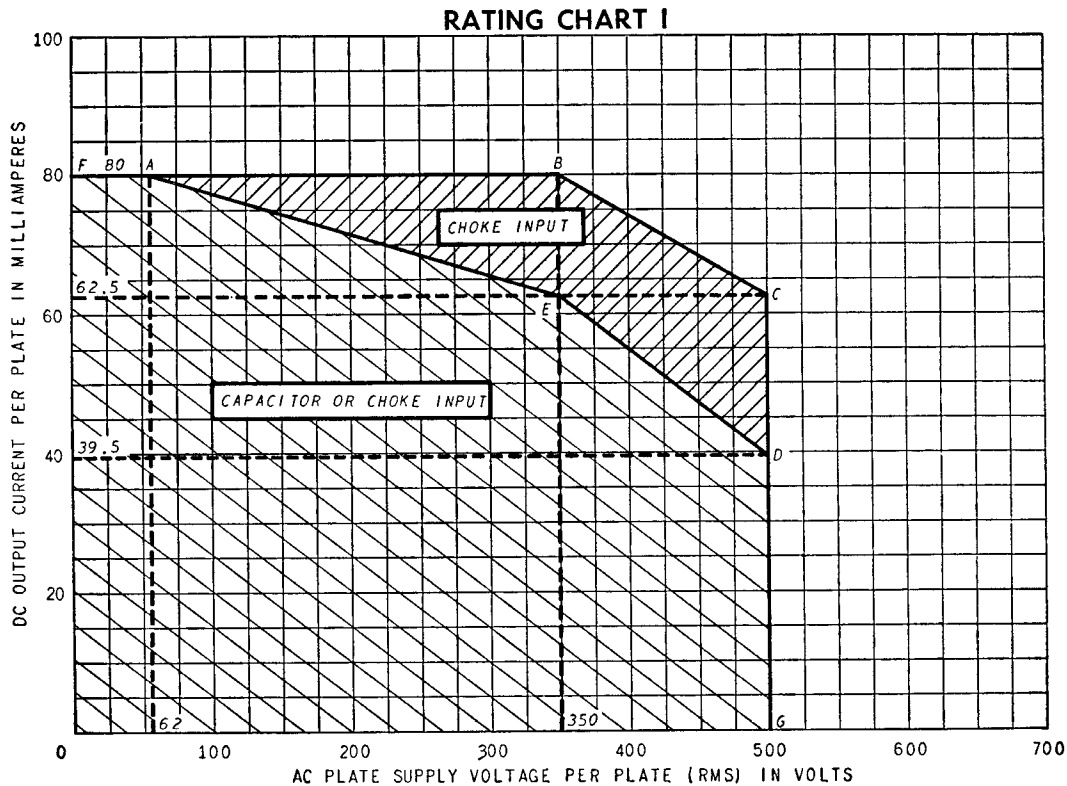
CHARACTERISTICS AND TYPICAL OPERATION

FULL-WAVE RECTIFIER

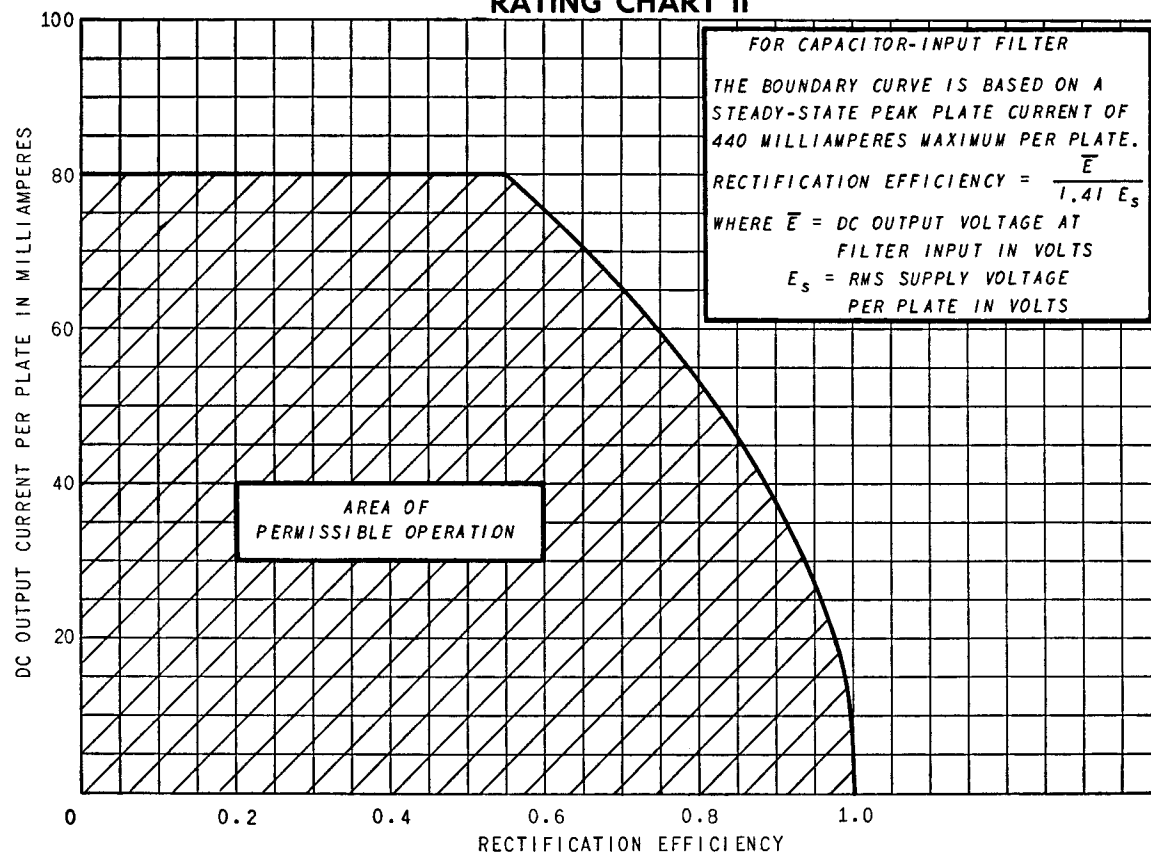
	Capacitor- Input Filter	Choke Input Filter
AC Plate-Supply Voltage per Plate, RMS.....	350	500 Volts
Filter Input Capacitor.....	20	... Microfarads
Filter Input Choke.....	...	10 Henrys
Total Plate-Supply Resistance per Plate.....	50	... Ohms
DC Output Current.....	125	125 Milliampères
DC Output Voltage at Filter Input.....	360	380 Volts
Tube Voltage Drop		
I_b = 125 Milliampères DC per Plate.....	50	Volts

- * Horizontal operation is permitted if pins 2 and 4 are in a vertical plane.
- † 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; with a choke-input filter, operation must be within the indicated boundary of Rating Chart I.
- ‡ 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.

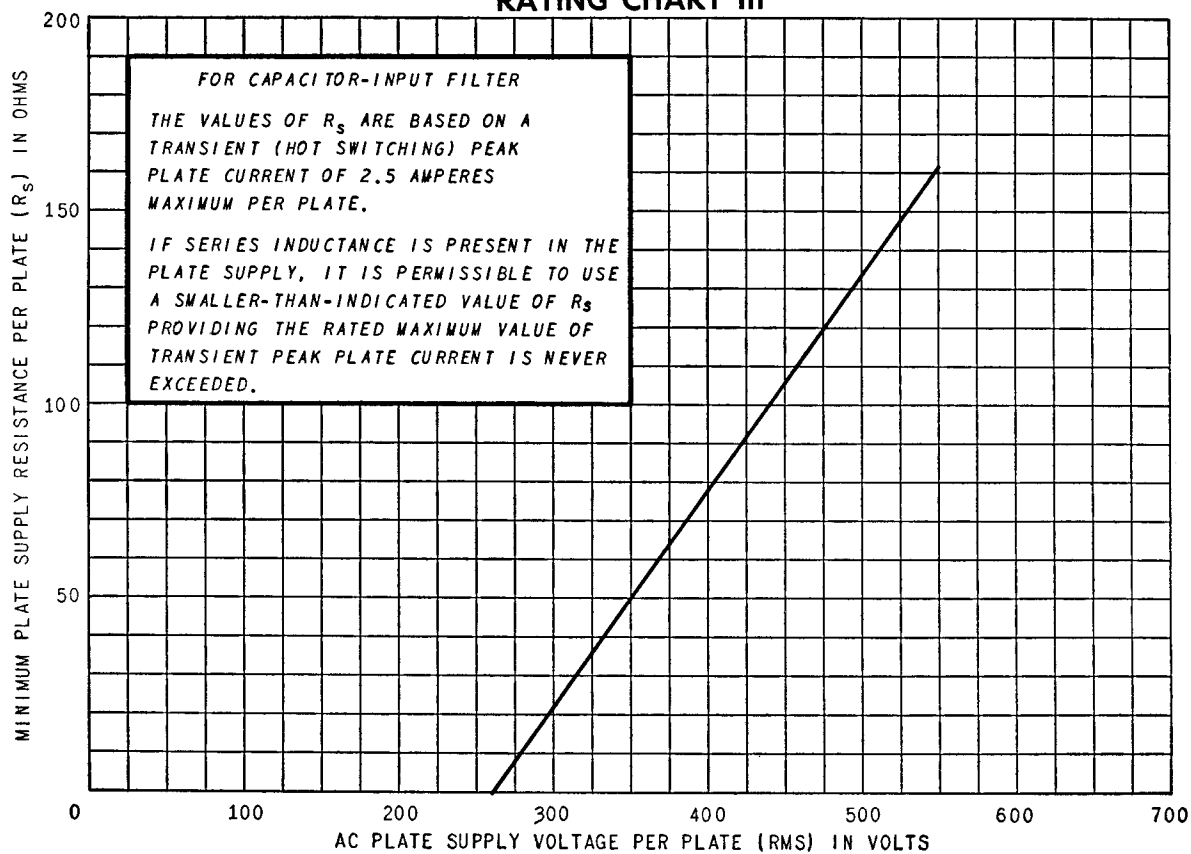
Note: The indicated values of a-c plate supply voltage shown throughout the data are measured without load.



RATING CHART II

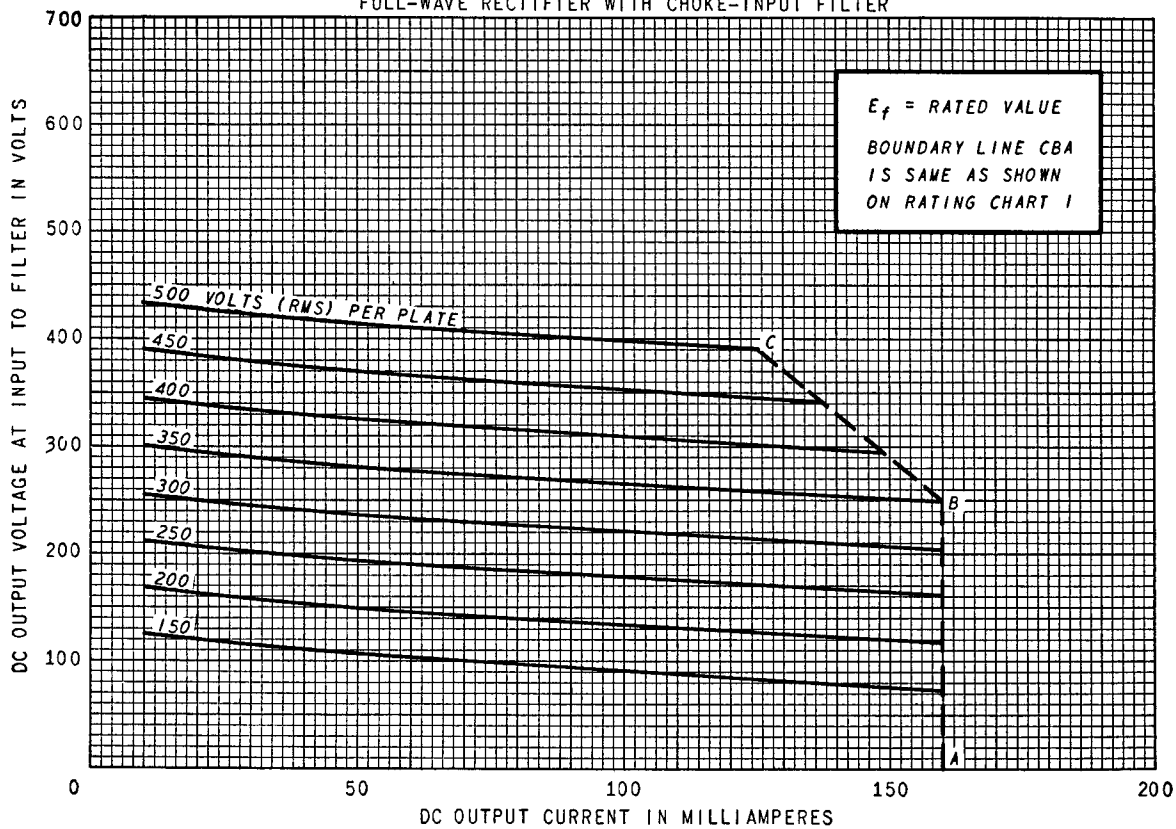


RATING CHART III



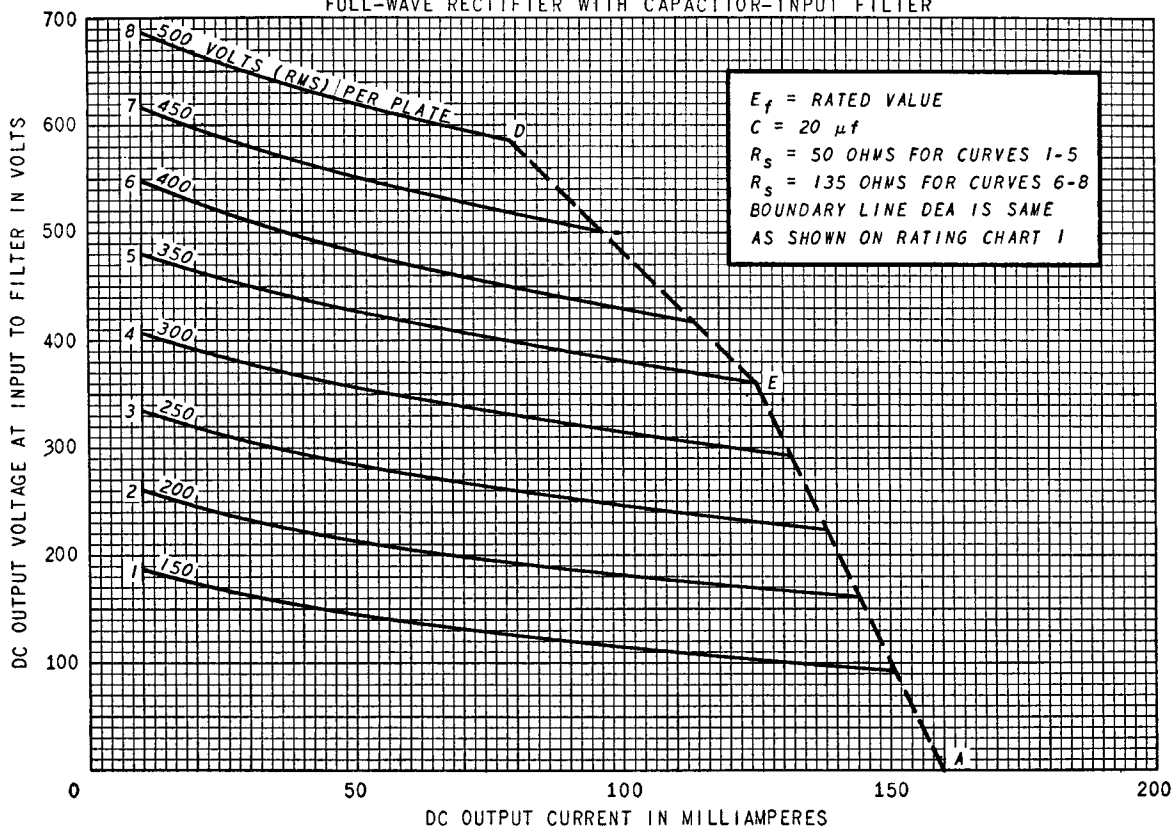
OPERATION CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CHOKE-INPUT FILTER



OPERATION CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CAPACITOR-INPUT FILTER



AVERAGE PLATE CHARACTERISTICS

EACH SECTION

