



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 I‡

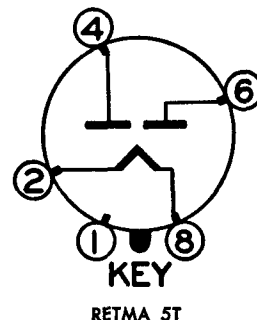
Steady-State Peak Plate Current per Plate..... 440 Milliamperes

Transient Peak Plate Current per Plate, Maximum Duration 0.2

Second..... 2.5 Amperes

DC Output Current—See Rating Chart I‡

BASING DIAGRAM



TERMINAL CONNECTIONS

Pin 1—No Connection

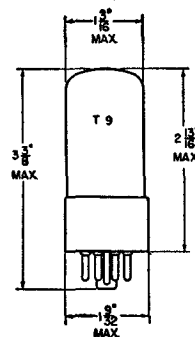
Pin 2—Filament

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

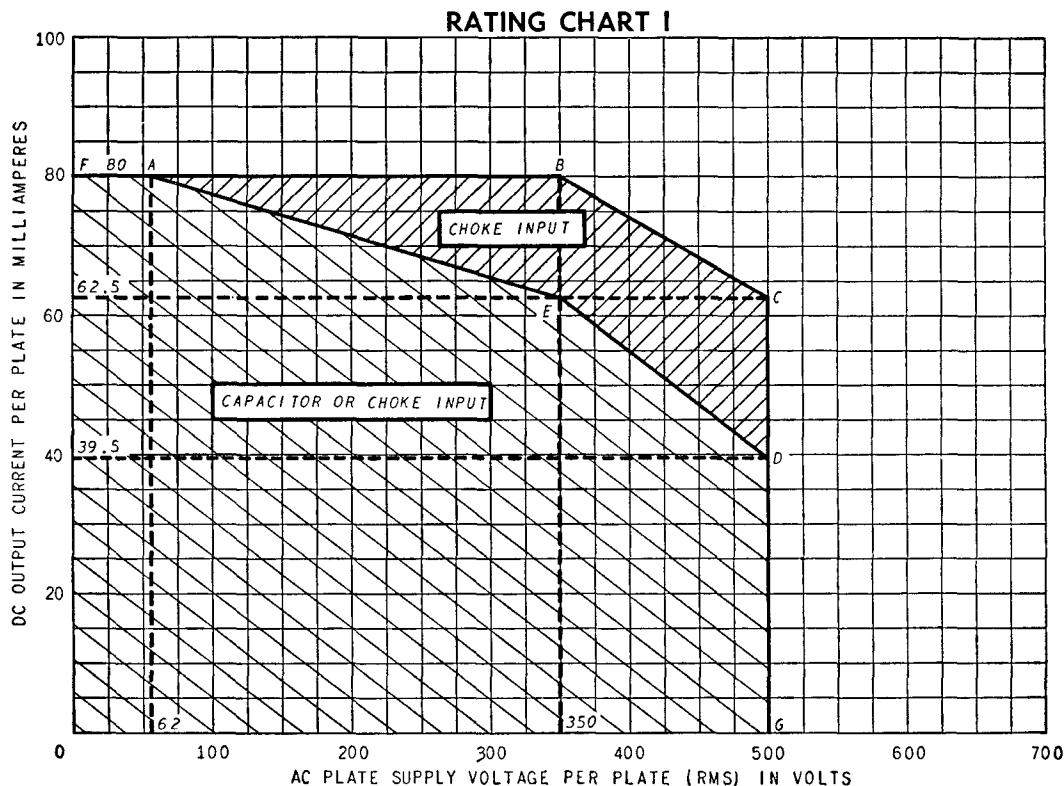
CHARACTERISTICS AND TYPICAL OPERATION

FULL-WAVE RECTIFIER

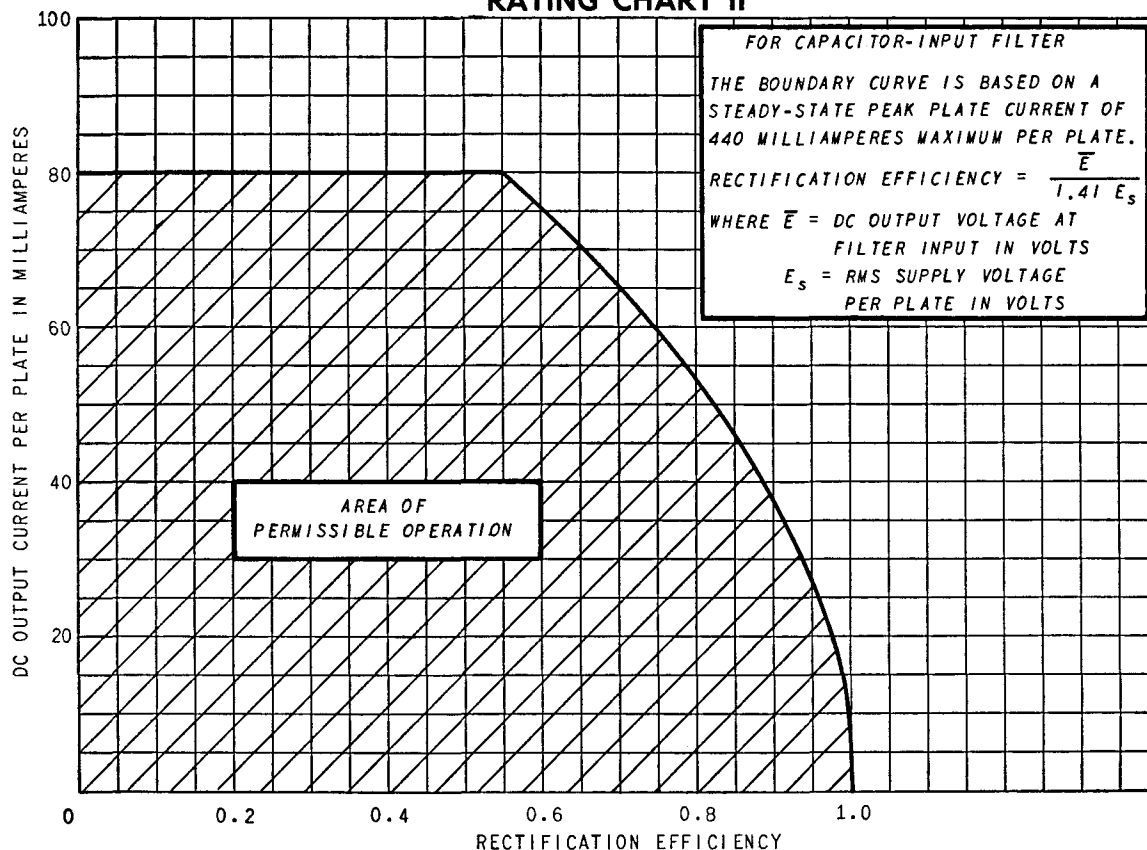
	Capacitor- Input Filter	Choke Input Filter
AC Plate-Supply Voltage per Plate, RMS.....	350	500 Volts
Filter Input Capacitor.....	20	... Microfarads
Filter Input Choke.....	...	10 Henrys
Total Plate-Supply Resistance per Plate.....	50	... Ohms
DC Output Current.....	125	125 Milliamperes
DC Output Voltage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

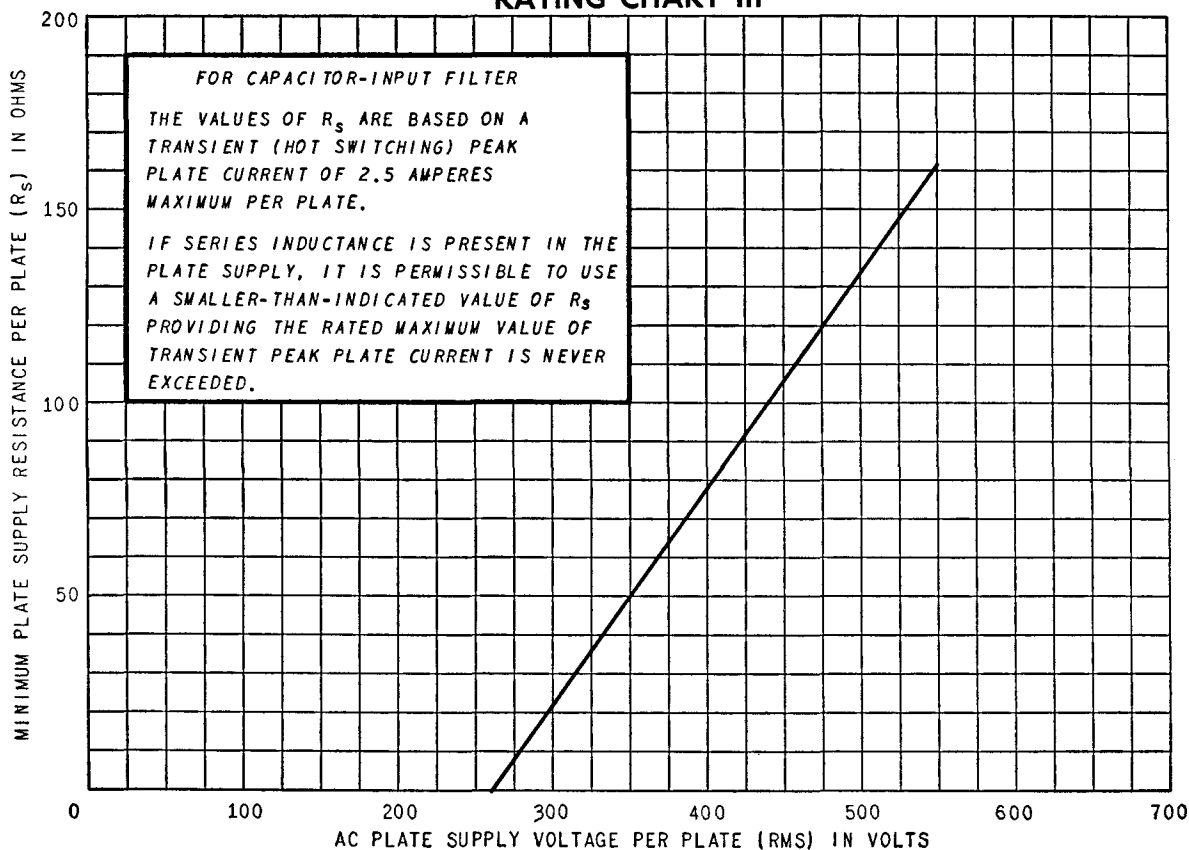
Note: The indicated values of a-c plate supply voltage shown throughout the data are measured without load.



RATING CHART II

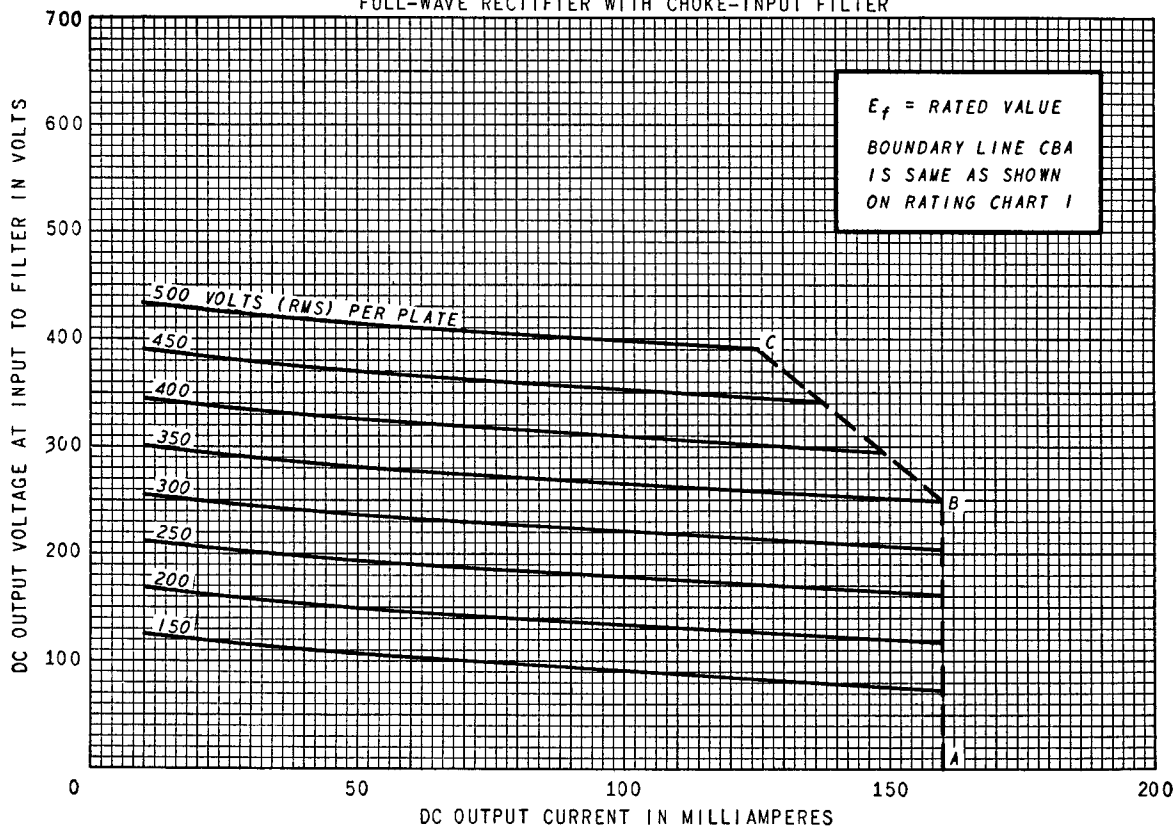


RATING CHART III



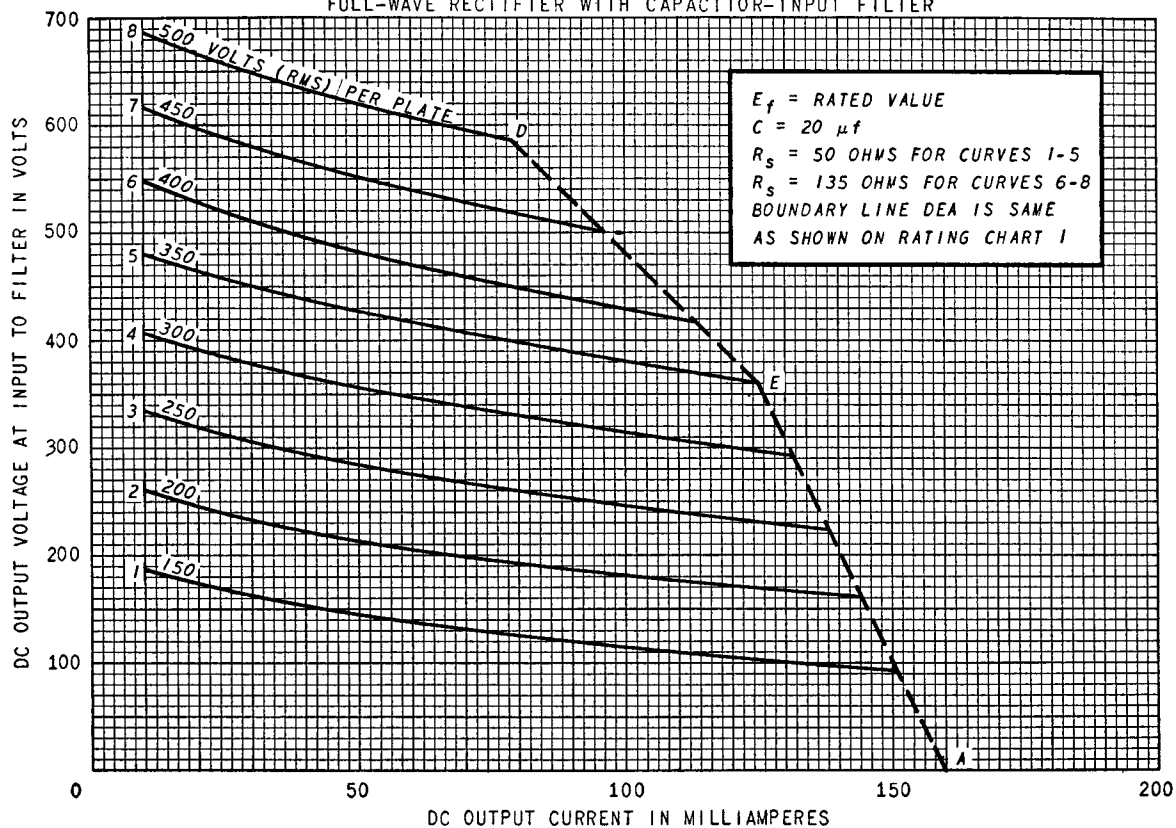
OPERATION CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CHOKE-INPUT FILTER



OPERATION CHARACTERISTICS

FULL-WAVE RECTIFIER WITH CAPACITOR-INPUT FILTER



AVERAGE PLATE CHARACTERISTICS

EACH SECTION

