5U4-GB

TWIN DIODE

FOR FULL-WAVE POWER RECTIFIER APPLICATIONS

Electronic
TUBES

DESCRIPTION AND RATING

The 5U4-GB is a filamentary twin diode designed for use as a full-wave rectifier in the power supply of television receivers or other equipment which have high direct-current requirements. The 5U4-GB employs a straight-sided T-12 envelope and may be used as a replacement for either the 5U4-G or 5U4-GA.
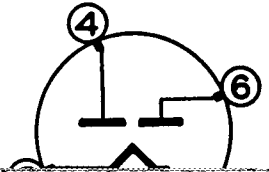
GENERAL

ELECTRICAL

Cathode—Coated Filament

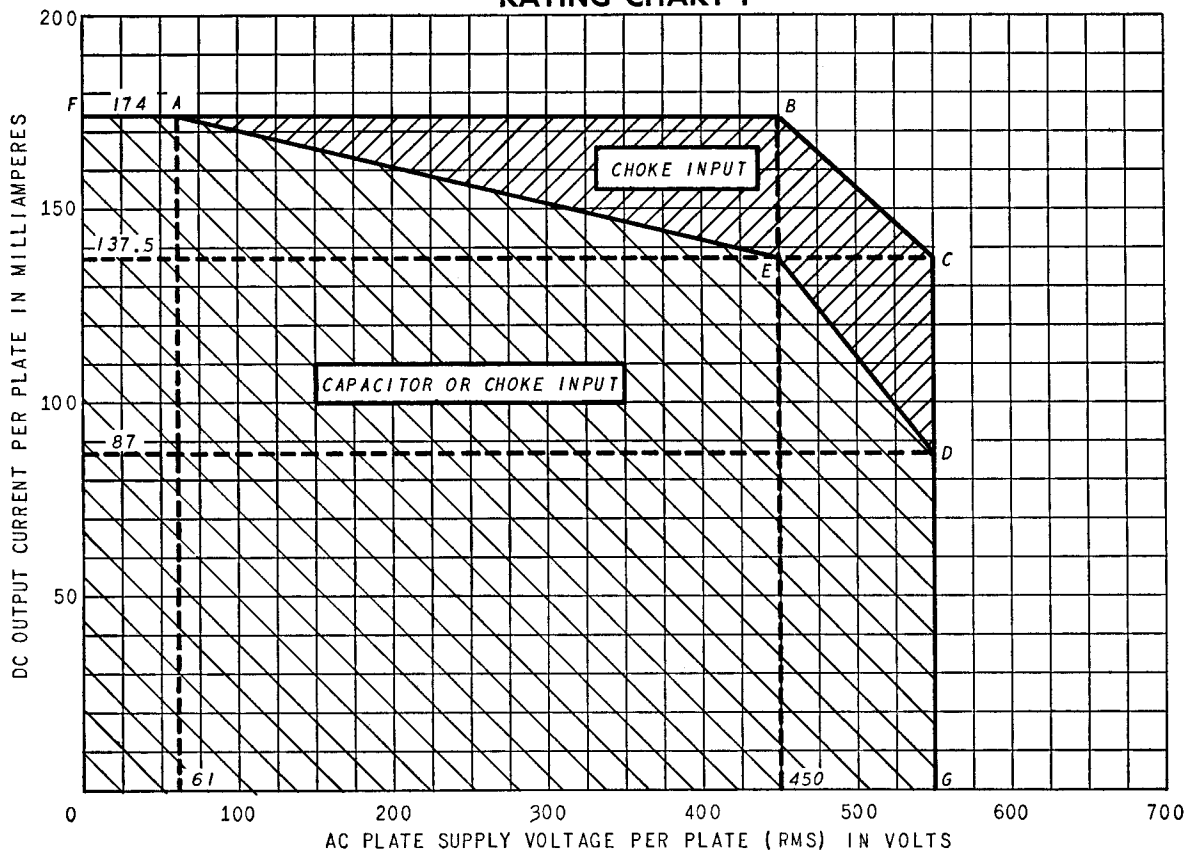Filament Voltage, AC or DC .... 5.0 Volts

BASING DIAGRAM

* Horizontal operation is permitted if pins 1 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 I

200

FOR CAPACITOR-INPUT FILTER

THE BOUNDARY CURVE IS BASED ON A

STEADY-STATE PEAK PLATE CURRENT OF

5U4-GB

ET-T1255

AVERAGE PLATE CHARACTERISTICS

OPERATION CHARACTERISTICS
FULL-WAVE RECTIFIER WITH CHOKE-INPUT FILTER

E_f = 5.0 VOLTS
(BOUNDARY LINE CBA
IS SAME AS SHOWN
ON RATING CHART 1)

AT INPUT TO FILTER IN VOLTS

550 VOLTS (RMS) PER PLATE
500
450
400
350