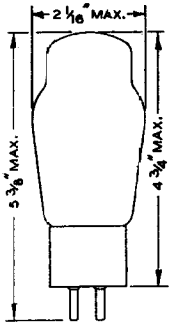
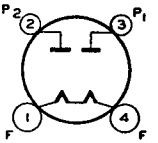


RCA-5Z3

FULL-WAVE RECTIFIER



The 5Z3 is a high-vacuum rectifier of the full-wave type intended for supplying rectified power to radio equipment having very large direct-current requirements.

CHARACTERISTICS

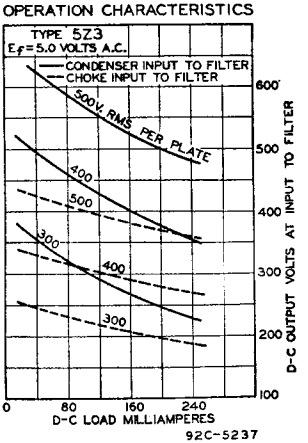
Filament Voltage (A. C.)	5.0	Volts
Filament Current	3.0	Amperes
A-C Plate Voltage Per Plate (RMS)	500 *max.*	Volts
Peak Inverse Voltage	1400 *max.*	Volts
D-C Output Current	250 *max.*	Milliamperes
Bulb		ST-16
Base		Medium 4-Pin

INSTALLATION

The base pins of the 5Z3 fit the standard four-contact socket which should be mounted preferably to hold the tube in a vertical position with the base down. If it is necessary to place the tube in a horizontal position the socket should be mounted with the filament-pin openings either at the top or at the bottom so that the plane of each filament is vertical. Only a socket making very good filament contact and capable of carrying three amperes continuously should be used with the 5Z3. Provision should be made for adequate ventilation to prevent overheating.

The coated filament of the 5Z3 is intended to operate from the a-c line through a step-down transformer. The voltage applied to the filament terminals should be the rated value of 5.0 volts under operating conditions and average line voltage. The high current taken by the filament makes it imperative that all connections in the filament circuit be of low resistance and of adequate current-carrying capacity.

OPERATION CHARACTERISTICS



APPLICATION

As a **full-wave rectifier**, the 5Z3 may be operated with condenser-input or choke-input filter under conditions not to exceed the rating given under CHARACTERISTICS. Filter circuits are discussed on page 37.

As a **half-wave rectifier**, one or more 5Z3's may be operated with plates connected in parallel. For example, two 5Z3's so arranged in a full-wave circuit can supply twice the output current of a single tube. In this service, the plates of each 5Z3 are tied together at the socket. The allowable voltage and load conditions per tube are the same as for full-wave service.