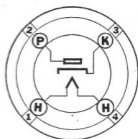


Sylvania

TYPE 12Z3

HIGH VACUUM

HALF-WAVE RECTIFIER



CHARACTERISTICS

Heater Voltage AC or DC	12.6 Volts
Heater Current	0.3 Ampere
Maximum Over-all Length.	4 1/4"
Maximum Diameter	1 1/8"
Bulb	ST-12
Base—Small 4-Pin	4-G

Operating Conditions and Characteristics:

Heater Voltage	12.6 Volts
A-C Plate Voltage (RMS)	250 Volts Max.*
D-C Output Current	60 Ma. Max.

NOTE: For rectifier curve data see Page 153.

*Maximum rating may be employed only under condition that there be at least 100 ohms a-c resistance in series with the plate circuit.

CIRCUIT APPLICATION

Sylvania Type 12Z3 is a half-wave, high vacuum rectifier of the heater-cathode type designed for operation in circuits delivering d-c power directly from an a-c supply. Its structure is simple, rigid and compact, and its characteristics are such that it gives very efficient rectification.

This rectifier is especially suitable for use in "universal" type receivers which are designed for both a-c and d-c operation. Such receivers usually employ four or five tubes, heater type, and require a total plate current of 30 to 40 milliamperes. The heaters of all the tubes, including the rectifier, are operated in series. This automatically imposes the requirement that the filament current rating be the same for all the tubes. The 12.6 volt heater in the 12Z3 reduces somewhat the heat dissipation in the fixed series resistor in the heater circuit. No power transformer is necessary in a receiver of this type and the rectifier tube remains in the circuit for either a-c or d-c line service.

In order to obtain a high d-c output voltage a filter of the condenser-input type should be used, 16 mfd. being recommended for half-wave rectification. Condensers having a moderate voltage rating will suffice because the input peak voltage of the a-c supply is relatively low.

TYPE 12Z3

$E_F = 12.6$ VOLTS

C = FILTER CONDENSER

