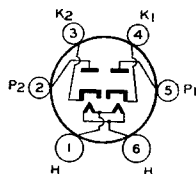


RCA-25Z5

RECTIFIER-DOUBLER

The 25Z5 is a full-wave, high-vacuum rectifier of the heater-cathode type for use in suitable circuits designed to supply d-c power from an a-c power line. This tube is well



suited for "transformerless" receivers of either the "universal (a.c.-d.c.)" type or the "a-c operated" type. In "universal" receivers, the 25Z5 may be used as a half-wave rectifier, while in the "a-c operated" type, it may be used as a voltage doubler to provide about twice the d-c output voltage obtainable from the half-wave arrangement. This two-fold application is made possible by the use of a separate base pin for each of the two cathodes. For voltage-doubler considerations, see page 25.

CHARACTERISTICS

HEATER VOLTAGE (A. C. or D. C.).....	25	Volts
HEATER CURRENT	0.3	Ampere
BULB		ST-12
BASE		Small 6-Pin

As Voltage Doubler

A-C PLATE VOLTAGE PER PLATE (RMS).....	125 max.	Volts
PEAK PLATE CURRENT.....	500 max.	Milliamperes
D-C OUTPUT CURRENT.....	100 max.	Milliamperes

As Half-Wave Rectifier

A-C PLATE VOLTAGE PER PLATE (RMS)...	125 max.	250* max.	Volts
PEAK PLATE CURRENT (per plate).....	500 max.	500 max.	Milliamperes
D-C OUTPUT CURRENT (per plate).....	85	85 max.	Milliamperes

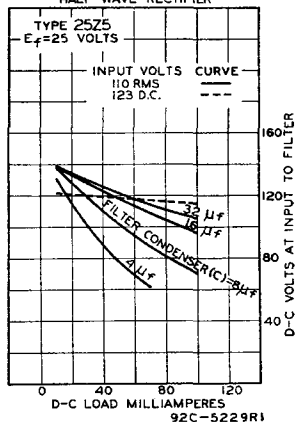
* On a-c input voltage above 125 volts, it is necessary to connect a 100 ohm resistor in series with each plate lead, or a 100 ohm resistor common to both plates (giving somewhat poorer regulation) may be used.

INSTALLATION AND APPLICATION

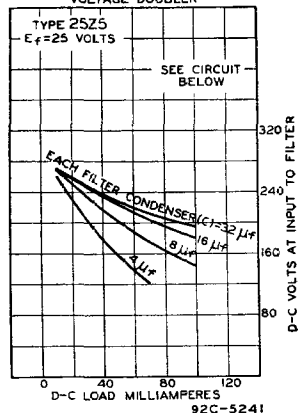
The base pins of the 25Z5 fit the standard six-contact socket which may be installed to hold the tube in any position. The bulb of this tube will become quite hot under certain conditions of operation. Sufficient ventilation should be provided to circulate air freely around the tube to prevent overheating. For heater operation, filter considerations, and APPLICATION, refer to type 25Z6.

Operation curves and circuits are given on the following page.

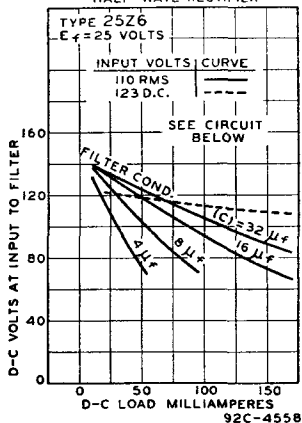
OPERATION CHARACTERISTICS
HALF-WAVE RECTIFIER



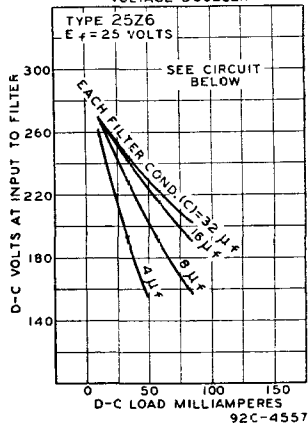
OPERATION CHARACTERISTICS
VOLTAGE DOUBLER



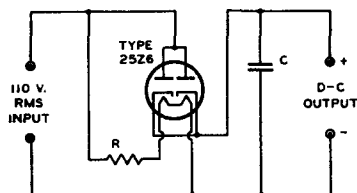
OPERATION CHARACTERISTICS
HALF-WAVE RECTIFIER



OPERATION CHARACTERISTICS
VOLTAGE DOUBLER

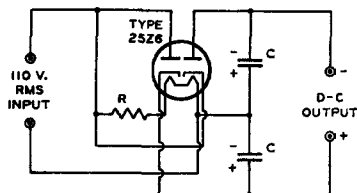


HALF-WAVE RECTIFIER CIRCUIT



R=HEATER VOLTAGE-DROPPING RESISTOR
C=FILTER CONDENSER

VOLTAGE-DOUBLER CIRCUIT



R=HEATER VOLTAGE-REDUCING RESISTOR
C=FILTER CONDENSER