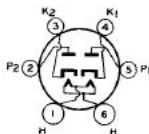


RCA-25Z5

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

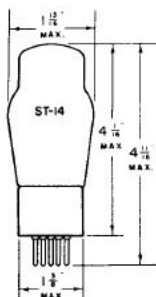
* On a-c input voltage above 125 volts, it is necessary to connect a 100 ohm resistor in series with each plate lead, or a 100 ohm resistor common to both plates (giving somewhat poorer regulation) may be used.

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.

TUNG-SOL



PENTODE POWER AMPLIFIER

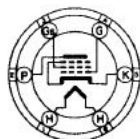
UNIPOTENTIAL CATHODE

HEATER

 25 VOLTS 0.3 AMPERE
 AC OR DC

GLASS BULB

MEDIUM 6 PIN BASE



6B

BOTTOM VIEW

THE TUNG-SOL 43 IS DESIGNED FOR SERVICE IN THE POWER OUTPUT STAGE OF AC-DC RECEIVERS. ITS CHARACTERISTICS ARE IDENTICAL WITH THOSE OF THE 25A6G.

MAXIMUM RATINGS

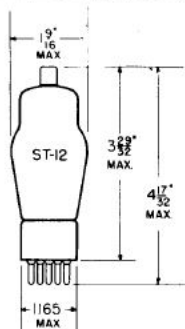
MAXIMUM PLATE VOLTAGE	160	VOLTS
MAXIMUM SCREEN VOLTAGE	135	VOLTS
MAXIMUM PLATE DISSIPATION	5.3	WATTS
MAXIMUM SCREEN DISSIPATION	1.9	WATTS

OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

PLATE VOLTAGE	95	135	160	VOLTS
SCREEN VOLTAGE	95	135	120	VOLTS
CONTROL GRID VOLTAGE	-15	-20	-18	VOLTS
PEAK AF SIGNAL VOLTAGE	15	20	18	VOLTS
ZERO-SIG. PLATE CURRENT	20	37	33	MA.
ZERO-SIG. SCREEN CURRENT	4	8	6.5	MA.
MAX.-SIG. PLATE CURRENT	22	39	36	MA.
MAX.-SIG. SCREEN CURRENT	8	14	12	MA.
PLATE RESISTANCE	45 000	35 000	42 000	OHMS
TRANSCONDUCTANCE	2000	2450	2375	μMHOS
LOAD RESISTANCE	4500	4000	5000	OHMS
TOTAL HARMONIC DISTORTION	11	9	10	PER CENT
POWER OUTPUT	0.9	2	2.2	WATTS

TUNG-SOL



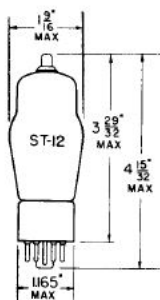
2A6, 75

SMALL METAL
CAPDUO-DIODE
HIGH-MU TRIODE AMPLIFIER

COATED UNIPOTENTIAL CATHODE

2A6	2.5 VOLTS	0.8 AMPERE
75	6.3 VOLTS	0.3 AMPERE
6B6G	6.3 VOLTS	0.3 AMPERE
AC OR DC		

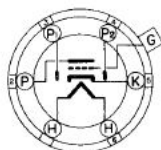
GLASS BULB



6B6G

SKIRTED MINIATURE
CAP

ANY MOUNTING POSITION



BOTTOM VIEW

SMALL
6-PIN BASE

BOTTOM VIEW

SMALL
7-PIN OCTAL BASE

THE 2A6, 6B6G AND 75 COMBINE TWO DIODES AND A HIGH-MU TRIODE IN A SINGLE BULB, USING A COMMON CATHODE. THEY ARE DESIGNED FOR USE AS DIODE DETECTORS, AVC RECTIFIERS AND RESISTANCE COUPLED AMPLIFIERS.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD MB-210

MAXIMUM PLATE VOLTAGE	250	VOLTS
MINIMUM DIODE CURRENT PER PLATE		
WITH 10 VOLTS DC APPLIED	0.8	MA.
MAXIMUM CATHODE VOLTAGE	100	VOLTS

CONTINUED ON NEXT PAGE

AZ 1 Rectifying valve

This is a directly-heated, full-wave rectifying valve for medium-power receivers operating on normal working voltages.

FILAMENT RATINGS

Heating: direct by A.C.

Filament voltage. $V_f = 4 \text{ V}$

Filament current. $I_f = 1.1 \text{ A}$



Fig. 1
Dimensions in mm.

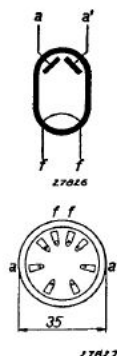


Fig. 2
Arrangement of
electrodes and
base connections.

MAXIMUM RATINGS

Voltage, on no load, at the secondary winding of

the power transformer. $V_{tr} = 2 \times 500 \text{ V}_{\text{eff}}$

D.C. output on $V_{tr} = 2 \times 500 \text{ V}_{\text{eff}}$ $I_o = \text{max. } 60 \text{ mA}$

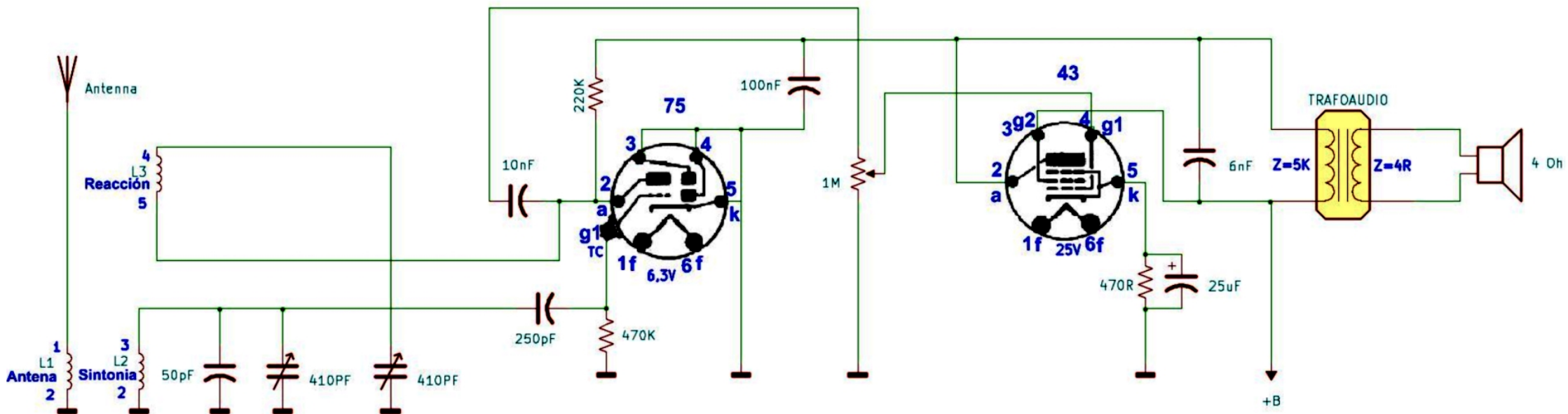
D.C. output on $V_{tr} = 2 \times 400 \text{ V}_{\text{eff}}$ $I_o = \text{max. } 75 \text{ mA}$

D.C. output on $V_{tr} = 2 \times 300 \text{ V}_{\text{eff}}$ $I_o = \text{max. } 100 \text{ mA}$

Capacitance of the first smoothing capacitor. $C = \text{max. } 60 \mu\text{F}$

If the valve is to be mounted horizontally, it should be located so that the filament lies in the vertical plane.

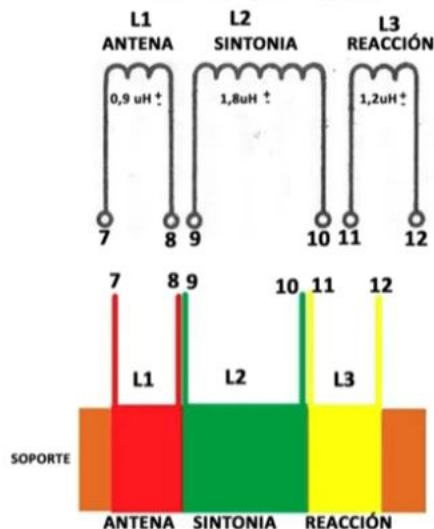
RECEPTOR REGENERATIVO CON DOS VÁLVULAS SERIE AMERICANA



Por J. Alberto Cardona, EA6SB

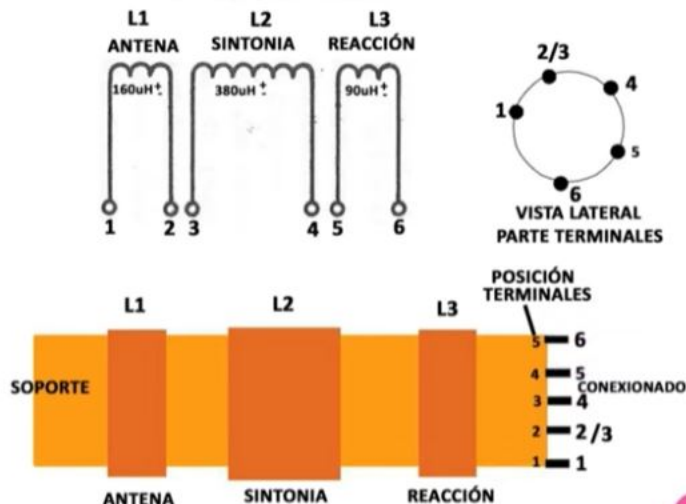
TRANSFORMADORES DE ALTA FRECUENCIA

TRANSFORMADOR DE AF PARA ONDA CORTA



L1 BOBINA DE ANTENA 4 ESPIRAS DE HILO DE COBRE FORRADO DE 0,5
 L2 BOBINA DE SINTONIA 8 ESPIRAS DE HILO DE COBRE FORRADO DE 0,5
 L3 BOBINA DE REACCIÓN 5 ESPIRAS DE HILO DE COBRE FORRADO DE 0,5
 NO EXISTE SEPARACIÓN ENTRE LOS DEVANADOS O BOBINAS
 DIAMETRO DEL SOPORTE ES 2 Cm
 LA LONGITUD DEL SOPORTE ES DE 5 Cm APROXIMADAMENTE
 EL MATERIAL DEL SOPORTE TIENE QUE SER CILINDRICO Y DE MATERIAL AISLANTE,
 PVC, METACRILATO, CARTÓN, ETC.
 EL DEVANADO SERA EN EL MISMO SENTIDO EN LAS TRES BOBINAS Y SE
 IDENTIFICARA EL PRINCIPIO Y FIN DE CADA BOBINA
 LOS TERMINALES 8 Y 9 VAN UNIDOS Y A MASA
 1 ESPIRA = 1 VUELTA DE HILO COMPLETA

TRANSFORMADOR DE AF PARA ONDA MEDIA



L1 BOBINA DE ANTENA 50 ESPIRAS DE HILO DE COBRE ESMALTADO DE 0,3
 L2 BOBINA DE SINTONIA 90 ESPIRAS DE HILO DE COBRE ESMALTADO DE 0,3
 L3 BOBINA DE REACCIÓN 40 ESPIRAS DE HILO DE COBRE ESMALTADO DE 0,3
 SEPARACIÓN ENTRE LOS DEVANADOS O BOBINAS 1,5 Cm
 DIAMETRO DEL SOPORTE ES 3,5 Cm
 LA LONGITUD DEL SOPORTE ES DE 14 Cm APROXIMADAMENTE
 EL MATERIAL DEL SOPORTE TIENE QUE SER CILINDRICO Y DE MATERIAL AISLANTE,
 PVC, METACRILATO, CARTÓN, ETC.
 EL DEVANADO SERA EN EL MISMO SENTIDO EN LAS TRES BOBINAS Y SE
 IDENTIFICARA EL PRINCIPIO Y FIN DE CADA BOBINA
 LOS TERMINALES 2 Y 3 VAN UNIDOS Y A MASA
 1 ESPIRA = 1 VUELTA DE HILO COMPLETA