

MICRO-SENSITIVE  
**RADIOTRON**  
The Guaranteed Wireless Valve

FOR THE FINEST  
RECEPTION BOTH  
LOCAL & OVERSEAS

**RADIOTRON**  
The Guaranteed Wireless Valve

Manufactured by  
AMALGAMATED  
WIRELESS  
VALVE CO LTD

# RADIOTRONICS

AMALGAMATED WIRELESS VALVE COMPANY LIMITED

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## Technical Bulletin No. 58

*Issued 27th January, 1936.*

## NEW ALL-METAL VALVES

In addition to the range of nine Radiotron All-Metal Valves described in Radiotronics Technical Bulletin No. 56, there are three new releases now announced—

ALL-METAL TYPE	EQUIVALENT GLASS TYPE
6Q7 Duo-diode high-mu triode .. . . . . .	75
25A6 Power pentode (AC-DC) .. . . . . .	43
25Z6 Rectifier-doubler .. . . . . .	25Z5

An improved form of construction for the all-metal valve 5Z4 is also announced.

**Radiotron 6Q7**

**Duo-Diode High-Mu Triode**

(Tentative Data)

Heater Voltage (A.C. or D.C.)	6.3 Volts
Heater Current	0.3 Ampere
Maximum Overall Length	3-1/8in.
Maximum Diameter	1-5/16in.
Cap	Miniature
Base	Small Octal 7-Pin

**Triode Unit—as Class “A” Amplifier**

Plate Voltage	100	250 max. Volts
Grid Voltage	-1.5	-3 Volts
Amplification Factor	70	70
Plate Resistance	87500	58000 Ohms
Mutual Conductance	800	1200 Micromhos
Plate Current	0.35	1.1 Milliamperes

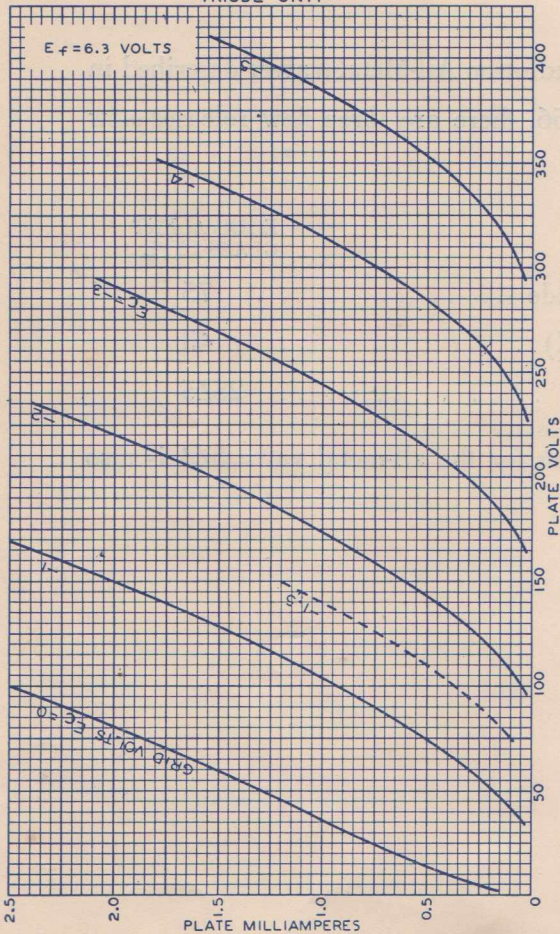
**Diode Units**

The two diode plates are placed around a cathode, the sleeve of which is common to the triode unit. Each diode plate has its own base pin.

It should be noted that this valve is not an exact replica of type 75 but has a higher mutual conductance and lower amplification factor and plate resistance.

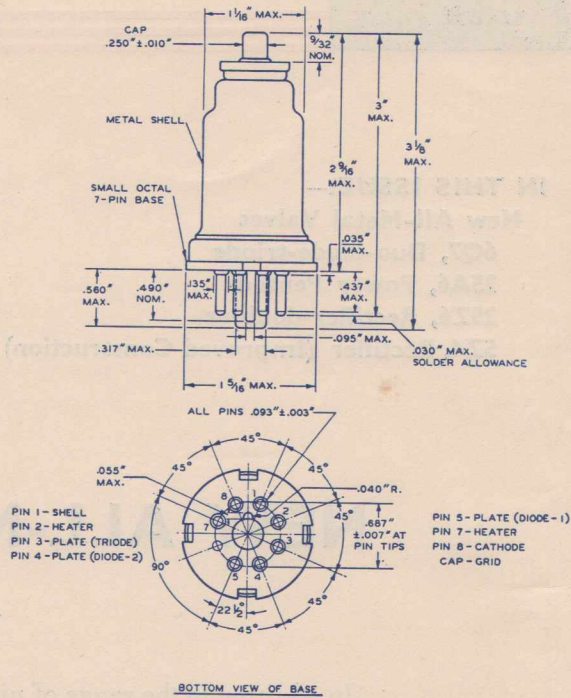
**RADIOTRON 6Q7**

AVERAGE PLATE CHARACTERISTICS  
TRIODE UNIT



**RADIOTRON 6Q7**

OUTLINE DRAWING



**Radiotron 25A6**

**Power Amplifier Pentode**

(Tentative Data)

Heater Voltage (A.C. or D.C.)	25 Volts
Heater Current	0.3 Ampere
Plate Voltage	95 135 180 max. Volts
Screen Voltage	95 135 max. 135 max. Volts
Grid Voltage	-15 -20 -20 Volts
Plate Current	20 39 40 Milliamperes
Screen Current	4 8.5 8 Milliamperes
Plate Resistance (Approx.)	45000 42000 40000 Ohms
Amplification Factor (Approx.)	90 100 95
Mutual Conductance	2000 2350 2400 Micromhos
Load Resistance	4500 4000 5000 Ohms
Self-Bias Resistor	625 420 420 Ohms
Power Output	0.9 2 2.75 Watts
Total Harmonic Distortion	11 9 10 per cent.
Maximum Overall Length	3 1/4 in.
Maximum Diameter	1-5/16in.
Base	Small Octal 7-Pin

### Radiotron 25Z6

#### High-Vacuum Rectifier-Doubler

(Tentative Data)

Heater Voltage (A.C. or D.C.)	.. . . . 25 Volts
Heater Current	.. . . . 0.3 Ampere
Maximum Overall Length	.. . . . 3-1/4in.
Maximum Diameter	.. . . . 1-5/16in.
Base	.. . . . Small Octal 7-Pin

#### As Voltage Doubler

A-C Plate Voltage Per Plate (RMS)	125 max. Volts
Peak Plate Current	.. . . . 500 max. Milliamperes
D-C Output Current	.. . . . 85 max. Milliamperes

#### As Half-Wave Rectifier

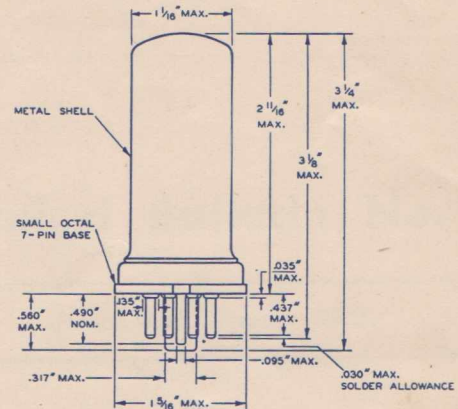
A-C Plate Voltage Per Plate (RMS)	125 max. Volts
Peak Plate Current Per Plate	.. 500 max. Milliamperes
D-C Output Current Per Plate	.. 85 max. Milliamperes

In half-wave rectified service, the two units of the 25Z6 may be used separately or in parallel.

It should be noted that this valve is limited to an applied A.C. voltage of 125 volts and is not suitable for operation on higher voltages.

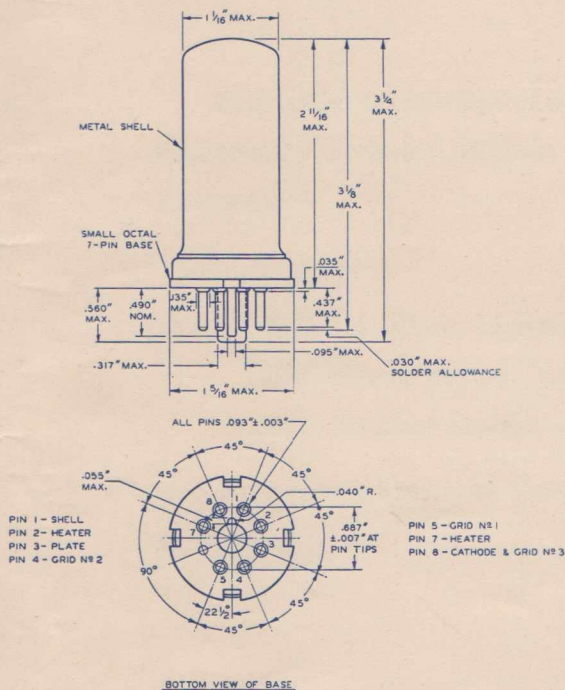
### RADIOTRON 25Z6

#### OUTLINE DRAWING



### RADIOTRON 25A6

#### OUTLINE DRAWING



### 5Z4 Improved Construction

Radiotron 5Z4 will shortly be available in an improved construction. In place of the perforated-metal screen construction the new valve will have a conventional arrangement of electrodes very similar to the 83V inside a metal envelope of the same dimensions as the 6F6. The electrical characteristics of the new construction will be almost identical with those already published for the older type, and the two will be directly interchangeable.

