

BRIMAR

VALVES

TYPE 9BW6DATE
ISSUED 9.8.50

R.M.A. REGISTRATION DATA

9BW6BEAM PENTODE

The 9BW6 is a miniature type beam power amplifier pentode similar to the type 6BW6. It is designed for use in A.C./D.C. medium power audio amplifier applications with particular reference to A.C./D.C. television receivers using a series heater chain of 0.3 amps. The use of the T-6 $\frac{1}{2}$ bulb enables the valve to meet the full rating of the 6V6C/GT.

MECHANICAL DATA

Coated unipotential cathode.

Outline drawing 6-3 Bulb T-6 $\frac{1}{2}$

Base E9-4 Miniature glass button 9-pin.

Maximum diameter 7/8"

Maximum overall length 2.5/8"

Maximum seated height 2.3/8"

Pin connections Basing No. 9AM

Pin 1 - Grid No. 1

Pin 6 - IC

Pin 2 - Grid No. 1

Pin 7 - Plate

Pin 3 - Cathode

Pin 8 - Grid No. 2

Pin 4 - Heater

Pin 9 - Grid No. 3

Pin 5 - Heater

Mounting position any

ELECTRICAL DATARatings

Heater voltage (ac or dc) 9.45 volts

Maximum heater-cathode voltage 100 volts

Maximum plate voltage 315 volts

Maximum Grid No. 2 voltage 285 volts

Maximum plate dissipation 12 watts

Maximum Grid No. 2 dissipation 2 watts

Maximum external Grid No. 1 circuit resistance-self bias 0.5 megohm

Maximum external Grid No. 1 circuit resistance-fixed bias 0.1 megohm

Maximum bulb temperature at any point 250°C

Typical operating conditions and characteristics class A₁ amplifier

Heater voltage (ac or dc)	9.45	9.45	9.45 volts
Heater Current	300	300	300 mA
Plate voltage	180	250	315 volts
Grid No. 3 voltage	0	0	0 volts
Grid No. 2 voltage	180	250	225 volts
Grid No. 1 voltage	-8.5	-12.5	-13 volts
Plate resistance (approx.)	58000	52000	77000 ohms
Transconductance	3700	4100	3750 μ mhos
Peak a-f signal voltage	8.5	12.5	13 volts
Zero signal plate current	29	45	34 mA
Zero signal Grid No. 2 current	3	4.5	2.2 mA
Maximum signal plate current	30	47	35 mA
Maximum signal Grid No. 2 current	4	7	6 mA
Load resistance	5500	5000	8500 ohms
Total harmonic distortion (approx.)	8	8	12 %
Power output	2.0	4.5	5.5 watts