



## ELECTRONIC TUBE REFERENCE

## 6AH5G

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

## 1 SECTION

CONSTRUCTION

## BEAMPOWER

Television-oriented beam-power output tube with 6.3 V/0.9 A heater, 18.5 W maximum plate dissipation and special six-contact octal base.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 8             |
| NOMINAL HEATER      | 6.3 V / 900 mA    | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| SECTION 1 Beam Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |
| PLATE RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 33000 $\Omega$ |
| TRANSCONDUCTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.0052 S       |
| MAXIMUM PLATE VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 350 V          |
| MAXIMUM SCREEN VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 250 V          |
| MAXIMUM PLATE DISSIPATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 18.5 W         |
| MAXIMUM SCREEN DISSIPATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.7 W          |
| <i>Beam-power section. Published Class A1 beam operation: plate 350 V, screen 250 V, grid -18 V, gm approx 5200 <math>\mu</math>hos, rp approx 33000 ohms, zero-signal plate current 54 mA, screen current 2.5 mA, output 10.8 W. Alternative triode connection (screen tied to plate) is an operating mode, not a separate physical section: plate 250 V, grid -5 V, gm approx 4700 <math>\mu</math>hos, rp approx 1700 ohms, output 1.4 W. Values from Philco/RMA sheet; some OCR digits are unclear.</i> |                |

Philco 6AH5G is an indirectly heated beam-power amplifier tube designed for television circuits. It has electrical characteristics stated to be identical to the 6L6G, with a special six-contact octal arrangement (pins 3 and 5 omitted) to increase breakdown voltage between plate and other elements. Heater 6.3 V at

0.9 A. Maximum plate voltage 350 V, screen voltage 250 V, plate dissipation 18.5 W and screen dissipation 2.7 W. Class A1 beam operation and triode-connected screen-to-plate conditions are specified separately.

## SOURCE OPERATING CONDITIONS

## 1938 Raytheon

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1938 RAYTHEON

## Section 1 · Beam Power

| OTHER            |                      |                                                                                |
|------------------|----------------------|--------------------------------------------------------------------------------|
| PARAMETER        | PUBLISHED VALUE      | CONDITION / NOTE                                                               |
| Screen voltage   | 250 V                | Class A1 beam-tetrode connection; typical screen voltage                       |
| Transconductance | 5200 $\mu\text{mho}$ | Class A1 beam-tetrode connection; typical transconductance                     |
| Plate resistance | 33000 $\Omega$       | Class A1 beam-tetrode connection; approximate plate resistance                 |
| Power Output     | 10.8 W               | Class A1 beam-tetrode connection; typical output power                         |
| Screen current   | 2.5 mA               | Class A1 beam-tetrode connection; zero-signal screen current                   |
| Transconductance | 4700 $\mu\text{mho}$ | Class A1 triode-connected (screen tied to plate); approximate transconductance |
| Plate resistance | 1700 $\Omega$        | Class A1 triode-connected (screen tied to plate); approximate plate resistance |
| Power Output     | 1.4 W                | Class A1 triode-connected (screen tied to plate); typical output power         |
| Screen voltage   | 250 V                | Class A1 triode-connected: screen connected to plate at 250 V                  |