ELECTRONIC TUBE REFERENCE

6W6GT

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
BEAMPOWER

> Beam-power output tube providing useful Class-A audio power at relatively low plate voltage, suited to receiver and consumer-electronics output stages.

General characteristics

BASE DESIGNATION	7AC	**BASE PINS**	8
NOMINAL HEATER	6.3 V / 1.2 A	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

7AC - Terminal pinout

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 — Pin 1	—	—	NC · verified
PIN2 — Pin 2	—	H — Heater	CONNECTED · verified
PIN3 — Pin 3	A	P — Plate (Anode)	CONNECTED · verified
PIN4 — Pin 4	A	G2 — Screen Grid	CONNECTED · verified
PIN5 — Pin 5	A	G1 — Control Grid	CONNECTED · verified
PIN7 — Pin 7	—	H — Heater	CONNECTED · verified
PIN8 — Pin 8	A	BP — Beam-Forming Plate	CONNECTED · verified
PIN8 — Pin 8	A	K — Cathode	CONNECTED · verified

Section ratings

SECTION1 Beam Power	
PLATE RESISTANCE	28000 Ω
TRANSCONDUCTANCE	0.008 S
AMPLIFICATION FACTOR	6.2
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	1.25 W
MAXIMUM CATHODE CURRENT	60 mA

Class-A promoted values use the 200-V operating column; alternate operating points and triode-connection data are preserved as parameters.

6W6GT is a BeamPower vacuum tube documented in the RCA Receiving Tube Manual. The supplied excerpt was reviewed for heater data, section arrangement, maximum ratings, electrical characteristics, interelectrode capacitances, typical operating conditions, and stated applications.

SOURCE OPERATING CONDITIONS

1944 Hytron

SOURCE PDF

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

1944 HYTRON

Section 1 · Beam Power

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Load Resistance	**2000 ohm**	ClassA;OneTube

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

195X General Electric Essential Characteristics

SOURCE PDF

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Beam Power

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	**200 V**	ClassA;PentodeConnection
Screen-grid voltage	**125 V**	ClassA;PentodeConnection
Plate current	**46 mA**	ClassA;PentodeConnection
Screen-grid current	**2.2 mA**	ClassA;PentodeConnection
Load resistance	**4000 ohm**	ClassA;PentodeConnection
Power output	**3.8 W**	ClassA;PentodeConnection
Plate voltage	**110 V**	ClassA;PentodeConnection;LowVoltage

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-grid voltage	**110 V**	ClassA;PentodeConnection;LowVoltage
Plate current	**49 mA**	ClassA;PentodeConnection;LowVoltage
Screen-grid current	**4 mA**	ClassA;PentodeConnection;LowVoltage
Load resistance	**2000 ohm**	ClassA;PentodeConnection;LowVoltage
Power output	**2.1 W**	ClassA;PentodeConnection;LowVoltage
Maximum positive pulse plate voltage	**1200 V**	VerticalDeflection;TriodeConnection;PulseDuration<=15%ScanCycle
Maximum plate dissipation	**7.5 W**	VerticalDeflection;TriodeConnection
Maximum DC cathode current	**40 mA**	VerticalDeflection;TriodeConnection

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	**28000 ohm**	ClassA;PentodeConnection;PlateVoltage=200V
Transconductance	**8000 uS**	ClassA;PentodeConnection;PlateVoltage=200V
Plate resistance	**13000 ohm**	ClassA;PentodeConnection;LowVoltage
Transconductance	**8000 uS**	ClassA;PentodeConnection;LowVoltage

SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Beam Power

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	**6.3 V**	—
Heater Current	**1.2 A**	—
Grid To Plate Capacitance	**0.8 pF**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	**15 pF**	—
Output Capacitance	**9 pF**	—
Plate Resistance	**28000 ohm**	—
Transconductance	**8000 uS**	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	**200 V**	ClassA
Screen Voltage	**125 V**	ClassA
Cathode Bias Resistance	**180 ohm**	ClassA
Plate Current	**46 mA**	ClassA
Screen Current	**2.2 mA**	ClassA
Load Resistance	**4000 ohm**	ClassA
Power Output	**3.8 W**	ClassA
PeakPositivePlateVoltage	**1200 V**	VerticalDeflection;TriodeConnection

SOURCE OPERATING CONDITIONS

SOURCE PDF

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Beam Power

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	**200 V**	ClassA
Grid #2 voltage	**125 V**	ClassA
Cathode bias resistor	**180 ohm**	ClassA
Zero-signal plate current	**46 mA**	ClassA
Zero-signal grid #2 current	**2.2 mA**	ClassA
Load resistance	**4000 ohm**	ClassA
Power output	**3.8 W**	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive pulse plate voltage	**1500 V**	VerticalDeflection;PentodeConnection
Peak negative pulse grid #1 voltage	**-275 V**	VerticalDeflection
Peak cathode current	**195 mA**	VerticalDeflection

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	**28000 ohm**	ClassA
Transconductance	**8000 uS**	ClassA
Triode-connected amplification factor	**6.2**	TriodeConnection
Triode-connected plate resistance	**1600 ohm**	TriodeConnection
Triode-connected transconductance	**3800 uS**	TriodeConnection

SOURCE OPERATING CONDITIONS

SOURCE PDF

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Beam Power

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	**13000 ohm**	ClassA;Ep=110V
Plate Resistance Triode Connection	**1600 ohm**	TriodeConnection
Transconductance Triode Connection	**3800 uS**	TriodeConnection
Amplification Factor Triode Connection	**6.2**	TriodeConnection

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage	**110 V**	ClassA
Screen Voltage	**110 V**	ClassA
Power Output	**2.1 W**	ClassA

SOURCE OPERATING CONDITIONS

SOURCE PDF

1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**6.3 V**	—
Heater current	**1.2 A**	—
Plate voltage	**200 V**	ClassA
Screen voltage	**135 V**	ClassA
Plate current	**49 mA**	ClassA
Power output	**3.8 W**	ClassA

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate resistance	**25000 ohm**	ClassA
Transconductance	**6000 uS**	ClassA

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-to-plate capacitance	**0.4 pF**	—
Input capacitance	**9 pF**	—
Output capacitance	**7.5 pF**	—

SOURCE OPERATING CONDITIONS

1975 RCA RC30

SOURCE PDF

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

1975 RCA RC30

Section 1 · Beam Power

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Warm-up Time (Average) —	**11 s**	Other
lvalue	**200 V**	Other
Plate Voltage	**330 V**	MaximumRating
Grid-No	**2 V**	MaximumRating;PublishedValue1
Grid-No	**165 V**	MaximumRating;PublishedValue2
Plate Dissipation	**12 W**	MaximumRating
Grid-No	**2 W**	MaximumRating;PublishedValue1
Grid-No	**1.35 W**	MaximumRating;PublishedValue2
Plate Supply Voltage	**110 V**	TypicalOperation;PublishedValue1
Plate Supply Voltage	**200 V**	TypicalOperation;PublishedValue2
Cathode-Bias Resistor —	**180 ohm**	TypicalOperation
Peak AF Grid-No.l Voltage	**7.5 V**	TypicalOperation;PublishedValue1
Peak AF Grid-No.l Voltage	**8.5 V**	TypicalOperation;PublishedValue2
Zero-Signal Plate Current	**49 mA**	TypicalOperation;PublishedValue1
Zero-Signal Plate Current	**46 mA**	TypicalOperation;PublishedValue2
Maximum-Signal Plate Current	**50 mA**	TypicalOperation;PublishedValue1
Maximum-Signal Plate Current	**47 mA**	TypicalOperation;PublishedValue2
Zero-Signal Grid-No	**2 mA**	TypicalOperation;PublishedValue1
Zero-Signal Grid-No	**4 mA**	TypicalOperation;PublishedValue2
Zero-Signal Grid-No	**2.2 mA**	TypicalOperation;PublishedValue3
Maximum-Signal Grid-No	**2 mA**	TypicalOperation;PublishedValue1
Maximum-Signal Grid-No	**10 mA**	TypicalOperation;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-Signal Grid-No	**8.5 mA**	TypicalOperation;PublishedValue3
Plate Resistance (Approx.)	**13000 ohm**	TypicalOperation;PublishedValue1
Plate Resistance (Approx.)	**28000 ohm**	TypicalOperation;PublishedValue2

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.l to Plate	**0.8 pF**	Capacitance
Grid No.l to Cathode. Heater, Grid No	**2 pF**	Capacitance;PublishedValue1
Grid No.l to Cathode. Heater, Grid No	**3 pF**	Capacitance;PublishedValue2
Grid No.l to Cathode. Heater, Grid No	**15 pF**	Capacitance;PublishedValue3
Plate to Cathode, Heater, Grid No	**2 pF**	Capacitance;PublishedValue1
Plate to Cathode, Heater, Grid No	**3 pF**	Capacitance;PublishedValue2
Plate to Cathode, Heater, Grid No	**9 pF**	Capacitance;PublishedValue3

Tube Tinker

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