

ELECTRONIC TUBE REFERENCE

6DS5

Power - Beam Single (NOT sweep) (under 10W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Seven-pin miniature beam-power pentode intended primarily for audio-output stages in television and radio receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BZ	BASE PINS	7
NOMINAL HEATER	6.3 V / 800 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7BZ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	A	G1 – Control Grid	CONNECTED • verified
PIN2 – Pin 2	A	G3 – Suppressor Grid	CONNECTED • verified
PIN2 – Pin 2	A	K – Cathode	CONNECTED • verified
PIN3 – Pin 3	–	H – Heater	CONNECTED • verified
PIN4 – Pin 4	–	H – Heater	CONNECTED • verified
PIN5 – Pin 5	A	P – Plate (Anode)	CONNECTED • verified
PIN6 – Pin 6	A	G2 – Screen Grid	CONNECTED • verified
PIN7 – Pin 7	A	G1 – Control Grid	CONNECTED • verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	28000 Ω
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	8.5
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM SCREEN VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	9 W
MAXIMUM SCREEN DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	50 mA
Audio-output beam-power section.	

The 6DS5 is a 7-pin miniature beam-power pentode intended primarily for audio output stages in television and radio receivers.



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.19 pF	—
Input capacitance	9.5 pF	—
Output capacitance	6.3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	ClassA1
Screen voltage	200 V	ClassA1
Zero-signal plate current	27 mA	ClassA1
Maximum-signal power output	3.6 W	ClassA1



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	800 mA	—
Plate voltage	200 V	ClassA;CathodeBias

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	200 V	ClassA;CathodeBias
Zero-signal plate current	34.5 mA	ClassA;CathodeBias
Maximum-signal plate current	32.5 mA	ClassA;CathodeBias
Load resistance	6000 ohm	ClassA
Power output	2.8 W	ClassA
Plate voltage	250 V	ClassA;CathodeBias
Power output	3.6 W	ClassA;250V
Maximum plate voltage	275 V	—
Maximum screen voltage	275 V	—
Plate dissipation	9 W	—
Screen input	2.2 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6000 uS	ClassA
Plate resistance	28000 ohm	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.19 pF	—
Input capacitance	9.5 pF	—
Output capacitance	6.3 pF	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1975 RCA RC30

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

1975 RCA RC30
Section 1 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.19 pF	Capacitance

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	9.6 pF	Capacitance
Plate to Cathode, Heater, Grid No.2, and Grid No.3	6.3 pF	Capacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	250 V	ClassA
Grid-No.2 Supply Voltage	200 V	ClassA
Cathode-Bias Resistor	270 ohm	ClassA
Peak AF Grid-No.1 Voltage	9.2 V	ClassA
Zero-Signal Plate Current	27 mA	ClassA
Maximum-Signal Plate Current	25 mA	ClassA
Load Resistance	8000 ohm	ClassA
Maximum-Signal Power Output	3.6 W	ClassA

TUBE TINKER

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