

ELECTRONIC TUBE REFERENCE

6CU5

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Miniature beam-power pentode designed for audio-frequency output service, particularly the sound-output stage of television receivers.

GENERAL CHARACTERISTICS

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

7CY - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G2	A	G2 – Screen Grid	CONNECTED
PIN2 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN2 – FCT	–	FCT – Filament Center Tap	CONNECTED
PIN3 – G1	A	G1 – Control Grid	CONNECTED
PIN4 – F	–	F – Filament	CONNECTED
PIN5 – F	–	F – Filament	CONNECTED
PIN6 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN6 – FCT	–	FCT – Filament Center Tap	CONNECTED
PIN7 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	10000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	135 V
MAXIMUM SCREEN VOLTAGE	117 V
MAXIMUM PLATE DISSIPATION	6 W
MAXIMUM SCREEN DISSIPATION	1.25 W
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>Published promoted fields populated from printed headings.</i>	

Miniature beam-power tube used in the audio-output stage of television receivers; the listed types are identical except for heater ratings.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7500 μ S	Typical



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	120 V	ClassA
Plate current	49 mA	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	10000 Ohm	—
Transconductance	7500 μ S	—



1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	1.2 A	—
Grid-Plate Capacitance	0.6 pF	—
Input Capacitance	13 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	135 V	—
Maximum Plate Dissipation	6 W	—
Maximum Screen Voltage	117 V	—
Maximum Screen Dissipation	1.25 W	—



SOURCE DATA APPENDIX

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	120 V	ClassA
Screen voltage	120 V	ClassA
Control-grid voltage	-8 V	ClassA
Load resistance	2500 ohm	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Signal power output	1.3 W	ClassA
Total harmonic distortion	20 percent	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero-signal plate current	49 mA	ClassA
Maximum-signal plate current	50 mA	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-1-to-plate capacitance	0.6 pF	—
Input capacitance	13 pF	—
Output capacitance	8.5 pF	—



SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	—
HeaterCurrentNominal	1.2 A	—
Typical Plate Voltage	120 V	ClassA
Typical Screen Voltage	110 V	ClassA
Maximum Signal Power Output	2.3 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	10000 Ohm	—
Transconductance	7500 uS	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC) – published value 1	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Voltage (AC or DC) – published value 2	10 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at 6.3 volts – published value 1	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at 6.3 volts – published value 2	1.2 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to plate	0.6	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	13	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	8.5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 -Cathode, – published value 1	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 -Cathode, – published value 2	4	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.3	5	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 2 -Grid No.1 – published value 1	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Grid No.1 – published value 2	6	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Heater – published value 1	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Heater – published value 2	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage	120 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid–No.2 Voltage	110 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid–No.1 Voltage	8 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Peak AF Grid–No.1 Voltage	8 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Zero–Signal Plate Current	49 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Zero-Signal Grid–No.2 Current	4 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx)	10000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance	7500	Published datasheet value; multiple values represent separate source-table limits or conditions.
Load Resistance	2500 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 (SCREEN-GRID) VOLTAGE	130 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Positive-bias value	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION	7 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 INPUT	1.4 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
respect to cathode	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
respect to cathode	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.—Signal Plate Current	50 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max. —Signal Grid-No.2 Current	8.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.—Signal Power Output	2.3 W	Published datasheet value; multiple values represent separate source-table limits or conditions.
For fixed—bias operation	0.1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For cathode—bias operation	0.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3 12.6	16.8 V	Published in approved 17CU5 target datasheet entry; Section1
Heater Current 1.2 0.6	450 mA	Published in approved 17CU5 target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 17CU5 target datasheet entry; Section1
Plate Voltage	150 V	Published in approved 17CU5 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage	130 V	Published in approved 17CU5 target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	Published in approved 17CU5 target datasheet entry; Section1
Plate Dissipation	7 W	Published in approved 17CU5 target datasheet entry; Section1
Grid-No.2 Input	1.4 W	Published in approved 17CU5 target datasheet entry; Section1
Plate Voltage	120 V	Published in approved 17CU5 target datasheet entry; Section1
Grid-No.2 Voltage	110 V	Published in approved 17CU5 target datasheet entry; Section1
Grid-No.1 Voltage	-8 V	Published in approved 17CU5 target datasheet entry; Section1
Peak AF Grid-No.1 Voltage	8 V	Published in approved 17CU5 target datasheet entry; Section1
Zero-Signal Plate Current	49 mA	Published in approved 17CU5 target datasheet entry; Section1
Zero-Signal Grid-No.2 Current	4 mA	Published in approved 17CU5 target datasheet entry; Section1
Maximum-Signal Grid-No.2 Current	8.5 mA	Published in approved 17CU5 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	10000 Ω	Published in approved 17CU5 target datasheet entry; Section1
Transconductance	7500 μS	Published in approved 17CU5 target datasheet entry; Section1
Load Resistance	2500 Ω	Published in approved 17CU5 target datasheet entry; Section1
Total Harmonic Distortion	10 %	Published in approved 17CU5 target datasheet entry; Section1
Maximum-Signal Power Output	2.3 W	Published in approved 17CU5 target datasheet entry; Section1
For fixed-bias operation	0.1 MΩ	Published in approved 17CU5 target datasheet entry; Section1
For cathode-bias operation	0.5 MΩ	Published in approved 17CU5 target datasheet entry; Section1
Heater Voltage (ac/dc) 2.1 6.3	13.5 V	Published in approved 17CU5 target datasheet entry; Section1
Heater Current 0.45 0.135	60 mA	Published in approved 17CU5 target datasheet entry; Section1
Plate Voltage	135 V	Published in approved 17CU5 target datasheet entry; Section1
Negative-bias value	55 V	Published in approved 17CU5 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.6 pF	Published in approved 17CU5 target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	13 pF	Published in approved 17CU5 target datasheet entry; Section1
Plate to Cathode, Heater, Grid No.2, and Grid No.3	8.5 pF	Published in approved 17CU5 target datasheet entry; Section1
Grid to Plate	0.92 pF	Published in approved 17CU5 target datasheet entry; Section1
Grid to Cathode. Heater, and Shell	4.3 pF	Published in approved 17CU5 target datasheet entry; Section1
Plate to Cathode, Heater, and Shell	1.8 pF	Published in approved 17CU5 target datasheet entry; Section1
Plate to Cathode	0.18 pF	Published in approved 17CU5 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater to Cathode	1.6 pF	Published in approved 17CU5 target datasheet entry; Section1

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