

ELECTRONIC TUBE REFERENCE

6CA5

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Miniature beam-power tube designed for audio-frequency power-output stages of radio and television receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CV	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

7CV - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN1 – K	A	K – Cathode	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – G1	A	G1 – Control Grid	CONNECTED
PIN6 – G2	A	G2 – Screen Grid	CONNECTED
PIN7 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	15000 Ω
TRANSCONDUCTANCE	0.0092 S
MAXIMUM PLATE VOLTAGE	130 V
MAXIMUM SCREEN VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM SCREEN DISSIPATION	1.4 W
<i>Audio output</i>	

Miniature beam-power tube used in audio-frequency power-output stages of radio and television receivers.



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate	5 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	130 V	—
Positive-bias value	0 V	—
PLATE DISSIPATION	5 W	—
Heater negative with respect to cathode	200 V	—
Heater positive with respect to cathode	2006 V	—
125 volts	125 V	—
Grid-No.1 Voltage	-4 V	Published table column 1 of 2
Grid-No.1 Voltage	-4.5 V	Published table column 2 of 2
Peak AF Grid-No.1 Voltage	4 V	Published table column 1 of 2
Peak AF Grid-No.1 Voltage	4.5 V	Published table column 2 of 2
Zero-Signal Plate Current	32 mA	Published table column 1 of 2
Zero-Signal Plate Current	37 mA	Published table column 2 of 2
Max.-Signal Plate Current	31 mA	Published table column 1 of 2
Max.-Signal Plate Current	36 mA	Published table column 2 of 2
Plate Resistance (Approx)	16000 Ω	Published table column 1 of 2
Plate Resistance (Approx)	15000 Ω	Published table column 2 of 2
Load Resistance	3500 Ω	Published table column 1 of 2
Load Resistance	4500 Ω	Published table column 2 of 2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max.-Signal Power Output	1.1 W	Published table column 1 of 2
Max.-Signal Power Output	1.5 W	Published table column 2 of 2
For fixed-bias operation	0 MΩ	Published table column 1 of 2
For fixed-bias operation	1 MΩ	Published table column 2 of 2
For cathode-bias operation	0 MΩ	Published table column 1 of 2
For cathode-bias operation	5 MΩ	Published table column 2 of 2
b The do component must not exceed	100 V	—



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
per Plate 150 200	240 Ω	Published in approved 12CA5 target entry; Section1
For dc output current of	150 mA	Published in approved 12CA5 target entry; Section1
For dc output current of 150 mA 245 293	347 V	Published in approved 12CA5 target entry; Section1
Heater Voltage (ac/dc) 6.3	126 V	Published in approved 12CA5 target entry; Section1
Heater Current 1.2	600 mA	Published in approved 12CA5 target entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 12CA5 target entry; Section1
Plate Voltage	130 V	Published in approved 12CA5 target entry; Section1
Grid-No.2 (Screen-Grid) Voltage	130 V	Published in approved 12CA5 target entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	Published in approved 12CA5 target entry; Section1
Plate Dissipation	5 W	Published in approved 12CA5 target entry; Section1
Grid-No. 2 Input	1.4 W	Published in approved 12CA5 target entry; Section1
Plate Voltage 110	125 V	Published in approved 12CA5 target entry; Section1
Grid-No.2 Voltage 110	125 V	Published in approved 12CA5 target entry; Section1
Grid-No.1 (Control-Grid) Voltage	-4.5 V	Published in approved 12CA5 target entry; Section1
Peak AF Grid-No.1 Voltage 4	4.5 V	Published in approved 12CA5 target entry; Section1
Zero-Signal Plate Current 32	37 mA	Published in approved 12CA5 target entry; Section1
Maximum-Signal Plate Current 31	36 mA	Published in approved 12CA5 target entry; Section1
Zero-Signal Grid-No.2 Current (Approx.) 3.5	4 mA	Published in approved 12CA5 target entry; Section1
Maximum-Signal Grid-No.2 Current (Approx.) 7.5	11 mA	Published in approved 12CA5 target entry; Section1
Plate Resistance (Approx.) 16000	15000 Ω	Published in approved 12CA5 target entry; Section1
Transconductance 8100	9200 μS	Published in approved 12CA5 target entry; Section1
Load Resistance 3500	4500 Ω	Published in approved 12CA5 target entry; Section1
Total Harmonic Distortion 5	6 %	Published in approved 12CA5 target entry; Section1
Maximum-Signal Power Output 1.1	1.5 W	Published in approved 12CA5 target entry; Section1
For fixed-bias operation	0.1 MΩ	Published in approved 12CA5 target entry; Section1
For cathode-bias operation	0.5 MΩ	Published in approved 12CA5 target entry; Section1
length,	4 %	Published in approved 12CA5 target entry; Section1
Heater Voltage (ac/dc)	6.3 V	Published in approved 12CA5 target entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	1.5 A	Published in approved 12CA5 target entry; Section1

TUBE TINKER

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