



ELECTRONIC TUBE REFERENCE

6KD6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Duodecar beam-power tube designed for low-B-plus color-television horizontal-deflection amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E12-74	BASE PINS	12
NOMINAL HEATER	6.3 V / 2.85 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	6000 Ω
TRANSCONDUCTANCE	0.014 S
MAXIMUM PLATE VOLTAGE	990 V
MAXIMUM SCREEN VOLTAGE	200 V
MAXIMUM PLATE DISSIPATION	33 W
MAXIMUM SCREEN DISSIPATION	5 W
MAXIMUM CATHODE CURRENT	1.4 A
Representative electrical section from supplied RCA data sheet.	

Duodecar beam-power tube used as a horizontal-deflection amplifier in television receivers.



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
Peak Positive Pulse Plate Voltage	7000 V	HorizontalDeflection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	40 pF	—
Output Capacitance	16 pF	—



SOURCE OPERATING CONDITIONS

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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 nominal	6.3 V	—
Heater current	2.85 A	—
DC Plate Supply Voltage h Ebb	990 V	Published source row
peak Positive-Pulse plate Voltage	7000 V	Published source row
DC Grid-No	3 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Grid-No (value 2)	20 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	200 V	Published source row
(Control-Grid) Voltage	250 V	Published source row
Heater Voltage, ac or dc Eh	5.7 V	Published source row
Heater Voltage, ac or dc Eh (value 2)	6.9 V	Published source row
Grid-No	2 W	Published source row
Grid-No (value 2)	5 W	Published source row
Plate Dissipationp Pb	33 W	Published source row
Grid-No.1-Circuit Resistance Rgl	2.2	Published source row
Grid-No	3	Published source row
Grid-No (value 2)	0.01	Published source row
current issue of EIA Standard RS	191	Published source row
With grid No	3	Published source row
With grid No (value 2)	2	Published source row
g As defined in the current issue of EIA Standard RS	239	Published source row
^~ receivers. Atypical value for this voltage is	20 V	Published source row

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
~.,.,, Heater Voltage, ac or dc. Eh	6.3 V	Published source row
Heater Current Ih	2.85 A	Published source row
Plate Resistance (approx.) rp –	6000	Published source row
Transconductance gm – – –	14000	Published source row
DC Plate Current Ib –	11004 mA	Published source row
DC Plate Current Ib – (value 2)	7804 mA	Published source row
DC Plate Current Ib – (value 3)	100 mA	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Grid-No	2 mA	Published source row
DC Grid-No (value 2)	1104 mA	Published source row
DC Grid-No (value 3)	444 mA	Published source row
Heater Voltage Eh	6 V	Published source row
Heater Voltage Eh (value 2)	3 V	Published source row
Plate Voltages ehm	5000 V	Published source row
DC Plate Voltage Eb –	45 V	Published source row
DC Plate Voltage Eb – (value 2)	60 V	Published source row
DC Plate Voltage Eb – (value 3)	150 V	Published source row
DC Grid-No	3	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	110 V	Published source row
DC Grid-No (value 3)	160 V	Published source row
DC Grid-No.1 Voltage . . –	0 V	Published source row
DC Grid-No.1 Voltage . . – (value 2)	0 V	Published source row
DC Grid-No.1 Voltage . . – (value 3)	-22.5 V	Published source row



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
Grid-No. 3-Circuit Resistance	0.68 MΩ	Published in approved 30KD6 target datasheet entry; Section1
For fixed-bias operation	0.5 MΩ	Published in approved 30KD6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For cathode-bias operation	1 MΩ	Published in approved 30KD6 target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved 30KD6 target datasheet entry; Section1
Heater Voltage 6.3 30	36 V	Published in approved 30KD6 target datasheet entry; Section1
Heater Current 2.85 0.6	450 mA	Published in approved 30KD6 target datasheet entry; Section1
Heater Warm-up Time 11	11 seconds	Published in approved 30KD6 target datasheet entry; Section1
Grid No.1 to Plate	0.8 pF	Published in approved 30KD6 target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	40 pF	Published in approved 30KD6 target datasheet entry; Section1
DC Plate Supply Voltage	990 V	Published in approved 30KD6 target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	7000 V	Published in approved 30KD6 target datasheet entry; Section1
Positive DC Grid-No.3 Voltage	20 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.2 Voltage	200 V	Published in approved 30KD6 target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage	250 V	Published in approved 30KD6 target datasheet entry; Section1
Peak Cathode Current	1400 mA	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.2 Input	5 W	Published in approved 30KD6 target datasheet entry; Section1
Transconductance –	14000 μS	Published in approved 30KD6 target datasheet entry; Section1
Plate Current – 750	120 mA	Published in approved 30KD6 target datasheet entry; Section1
Grid-No. 2 Current – 42"	1.8 mA	Published in approved 30KD6 target datasheet entry; Section1
of 1.0 jμA – –	-40 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.1-Circuit Resistance	2.2 MΩ	Published in approved 30KD6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No. 3-Circuit Resistance	0.01 MΩ	Published in approved 30KD6 target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved 30KD6 target datasheet entry; Section1
Heater Voltage (ac/dc) 4.5 5.6	6.3 V	Published in approved 30KD6 target datasheet entry; Section1
Heater Current 0.6 0.45	400 mA	Published in approved 30KD6 target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 30KD6 target datasheet entry; Section1
Plate Voltage 280	280 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Supply Voltage	280 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	Published in approved 30KD6 target datasheet entry; Section1
Cathode Current	20 mA	Published in approved 30KD6 target datasheet entry; Section1
Plate Dissipation	2 W	Published in approved 30KD6 target datasheet entry; Section1
For grid-No. 2 voltages up to	140 V	Published in approved 30KD6 target datasheet entry; Section1
For grid-No.2 voltages between 140 and	280 V	Published in approved 30KD6 target datasheet entry; Section1
Plate Supply Voltage 125	125 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.2 Supply Voltage	125 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.1 Supply Voltage 0	0 V	Published in approved 30KD6 target datasheet entry; Section1
Cathode-Bias Resistor 68	33 Ω	Published in approved 30KD6 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode, Heater, Grid No.2, and Grid No. 3	16 pF	Published in approved 30KD6 target datasheet entry; Section1
Grid to Plate	1.3 pF	Published in approved 30KD6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
and Internal Shield	2.4 pF	Published in approved 30KD6 target datasheet entry; Section1
and Internal Shield	2 pF	Published in approved 30KD6 target datasheet entry; Section1
and Internal Shield	5 pF	Published in approved 30KD6 target datasheet entry; Section1
and Internal Shield	3.4 pF	Published in approved 30KD6 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 150 60	150 V	Published in approved 30KD6 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage 150 110	110 V	Published in approved 30KD6 target datasheet entry; Section1
Plate Resistance (Approx.) –	6000 Ω	Published in approved 30KD6 target datasheet entry; Section1

TUBE TINKER

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