



ELECTRONIC TUBE REFERENCE

6JC6A

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Improved frame-grid sharp-cutoff pentode for television IF amplification around 40 MHz with approximately 16 mA/V transconductance.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	180000 Ω
TRANSCONDUCTANCE	0.016 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3.1 W
MAXIMUM SCREEN DISSIPATION	0.7 W
Frame-grid sharp-cutoff IF pentode.	

Sharp-cutoff frame-grid miniature pentode used in television IF-amplifier stages around 40 MHz.



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (AC or DC) Eh	6.3 V	Published table value
Heater Current Ih	300 mA	Published table value
Grid No	1 pF	Published table value column 1
Grid No	0.019 pF	Published table value column 2
Input: G	8.5 K	Published table value
Output: P to IK, G	3 pF	Published table value
DC Plate Current Ib	14 mA	Published table value
DC Grid-No	2 mA	Published table value column 1
DC Grid-No	3.4 mA	Published table value column 2
Cutoff DC Grid-No. 1 Voltage Ecl(co)	-3 V	Published table value
DC Plate Supply Voltage Ebb	125 V	Published table value
DC Grid-No	2 V	Published table value column 1
DC Grid-No	125 V	Published table value column 2
Cathode Resistor ~k	56 k	Published table value
DC Plate Voltage Eb	330 V	Published table value
Voltage Ec	0 V	Published table value
Supply Voltage E c	330 V	Published table value
Neater Voltage (AC or DC) Eh	5.7 V	Published table value column 1
Neater Voltage (AC or DC) Eh	6.9 V	Published table value column 2
For Eck >	165 V	Published table value column 1
For Eck >	330 V	Published table value column 2
For Eck >	2 V	Published table value column 3

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation Pb	3 W	Published table value column 1
Plate Dissipation Pb	1 W	Published table value column 2
GRID-No	2 VOLTS	Published table value column 1
GRID-No	125 VOLTS	Published table value column 2
PLATE VOLTS•	123 VOLTS	Published table value
GRID-No	2 VOLTS	Published table value column 1
GRID-No	125 VOLTS	Published table value column 2

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance gm	16000 μS	Published table value



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak value	200 V	Other;PublishedValue1
Peak value	200 V	Other;PublishedValue2
Peak value	200 V	Other;PublishedValue3
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue3
Plate Voltage	330 V	MaximumRating;PublishedValue1
Plate Voltage	330 V	MaximumRating;PublishedValue2
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0 V	MaximumRating;PublishedValue1
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0 V	MaximumRating;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	MaximumRating;PublishedValue1
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	MaximumRating;PublishedValue2
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	MaximumRating;PublishedValue1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	MaximumRating;PublishedValue2
Plate Dissipation	2.5 W	MaximumRating;PublishedValue1
Plate Dissipation	3.1 W	MaximumRating;PublishedValue2
For grid-No.2 voltages up to 165 volts	0.6 V	MaximumRating;PublishedValue1
For grid-No.2 voltages up to 165 volts	0.7 V	MaximumRating;PublishedValue2
For fixed-bias operation	0.25 megohm	MaximumCircuitValue;PublishedValue1
For fixed-bias operation	0.25 megohm	MaximumCircuitValue;PublishedValue2
For cathode-bias operation	1 megohm	MaximumCircuitValue;PublishedValue1
For cathode-bias operation	1 megohm	MaximumCircuitValue;PublishedValue2
PLATE VOLTS	48 V	MaximumCircuitValue

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.019 pF	Capacitance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	125 V	Characteristic;PublishedValue1
Plate Supply Voltage	125 V	Characteristic;PublishedValue2
Grid-No.2 Supply Voltage	125 V	Characteristic;PublishedValue1
Grid-No.2 Supply Voltage	125 V	Characteristic;PublishedValue2
Cathode-Bias Resistor	56 ohm	Characteristic;PublishedValue1
Cathode-Bias Resistor	56 ohm	Characteristic;PublishedValue2
Plate Resistance (Approx.)	0.18 megohm	Characteristic;PublishedValue1
Plate Resistance (Approx.)	0.18 megohm	Characteristic;PublishedValue2
Plate Current	13 mA	Characteristic;PublishedValue1
Plate Current	14 mA	Characteristic;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 Current	3.2 mA	Characteristic;PublishedValue1
Grid-No.2 Current	3.4 mA	Characteristic;PublishedValue2
100	-3 V	Characteristic;PublishedValue1
100	-3 V	Characteristic;PublishedValue2

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