

ELECTRONIC TUBE REFERENCE

5879

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Sharp-cutoff pentode designed for low-level audio-amplifier input stages in public-address, recording, and audio equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9AD	BASE PINS	7
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9AD - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – K	A	K – Cathode	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN7 – G2	A	G2 – Screen Grid	CONNECTED
PIN8 – P	A	P – Plate (Anode)	CONNECTED
PIN9 – G3	A	G3 – Suppressor Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	2000000 Ω
TRANSCONDUCTANCE	0.001 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.25 W
MAXIMUM SCREEN DISSIPATION	0.25 W
<i>Published ratings and characteristics promoted where applicable; additional source-table values retained in TUBE_SECTION_PARAMETER.</i>	

Sharp-cutoff pentode intended for low-level audio amplifier input stages in PA systems, recorders and audio equipment. Extracted from the supplied RCA Receiving Tube Manual excerpt.



SOURCE OPERATING CONDITIONS

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1940 RCA

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

1940 RCA

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	LowNoise_AudioAmplifier text	—



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 3 of 4

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1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	150 mA	—
Maximum plate voltage	330 V	—
Maximum screen voltage	330 V	—
Maximum plate dissipation	1.25 W	—
Maximum screen dissipation	0.25 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	PentodeConnection
Screen voltage	100 V	PentodeConnection
Grid 1 voltage	-3 V	PentodeConnection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	1.8 mA	PentodeConnection
Screen current	0.4 mA	PentodeConnection
Triode-connected plate resistance	137000 ohm	TriodeConnection
Triode-connected transconductance	1530 uS	TriodeConnection
Triode-connected amplification factor	21	TriodeConnection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance maximum	0.11 pF	—
Input capacitance	2.7 pF	—
Output capacitance	2.4 pF	—



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 3 of 7

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1971 RCA HB3 BINDER 3 OF 7

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current at 6.3 volts – published value 1	6.3 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Current at 6.3 volts – published value 2	0.15 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and pins 2 and 6 – published value 1	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and pins 2 and 6 – published value 2	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid No. 2, heater, and pins 2 and 6 – published value 3	6	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and pins 2 and 6 – published value 4	2.7	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and Gins 2 and 6 – published value 1	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and Gins 2 and 6 – published value 2	2	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and Gins 2 and 6 – published value 3	6	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
grid No. 2, heater, and Gins 2 and 6 – published value 4	2.4	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid No.1 to plate	1.4	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid No.1 to cathode	1.4	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate to cathode	0.85	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Voltage – published value 1	100 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Voltage – published value 2	250 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Voltage – published value 3	250 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.2 Voltage	100 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.1 Voltage – published value 1	-3 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 Voltage – published value 2	-8 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.1 Voltage – published value 3	-3 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 1	1240	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 2	1530	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Transconductance – published value 3	1000	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 1	2.2 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 2	5.5 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Plate Current – published value 3	1.8 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.2 Current	0.4 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 1-Grid No.i – published value 1	1	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 1-Grid No.i – published value 2	6	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
tion	7	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
P i n 3-Cathode – published value 1	3	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
P i n 3-Cathode – published value 2	8	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 4-Heater – published value 1	4	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 4-Heater – published value 2	9	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Pin 5-Heater	5	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
330 volts	330 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
See RESISTANCE-COUPLED-AMPLIFIER CHARTS No. z6 6 No.2ry	6 A	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
GRID-No.2 VOLTS=100	100 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE (Ib) OR GRID-No.2 (I~2) MILLIAMPERES	2 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE VOLTS=250	250 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE (Ib) OR GRID-No.2 (I~2) MILLIAMPERES	2 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate	0.11 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE VOLTAGE – published value 1	275 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE VOLTAGE – published value 2	330 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
SUPPLY VOLTAGE	330 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Negative-bias value – published value 1	55 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Negative-bias value – published value 2	55 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Positive-bias value – published value 1	0 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Positive-bias value – published value 2	0 V	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE DISSIPATION – published value 1	1.7 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
PLATE DISSIPATION – published value 2	1.25 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.1-Circuit Resistance 2.2 max – published value 1	2.2 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.
Grid-No.1-Circuit Resistance 2.2 max – published value 2	2.2 mA	Published datasheet value; multiple values on a source row represent separate source-table conditions or limits.



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode grid-to-plate capacitance	0.11 pF	Max
Pentode input capacitance	2.7 pF	PentodeConnection
Pentode output capacitance	2.4 pF	PentodeConnection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode grid-to-plate capacitance	1.4 pF	TriodeConnection
Triode input capacitance	1.4 pF	TriodeConnection
Triode output capacitance	0.85 pF	TriodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode amplification factor	21	TriodeConnection
Triode plate resistance	17000 ohm	TriodeConnection
Triode transconductance	1530 uS	TriodeConnection
Pentode plate current	1.8 mA	PentodeConnection

TUBE TINKER

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