

ELECTRONIC TUBE REFERENCE

6197

Power - Pentode Single (NOT beam) (under 10W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Sharp-cutoff power pentode designed especially for pulse-amplifier applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9BV	BASE PINS	9
NOMINAL HEATER	6.3 V / 650 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9BV - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – K	A	K – Cathode	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – G2	A	G2 – Screen Grid	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – P	A	P – Plate (Anode)	CONNECTED
PIN7 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN7 – IS	A	IS – Internal Screen	CONNECTED
PIN8 – G2	A	G2 – Screen Grid	CONNECTED
PIN9 – G1	A	G1 – Control Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	90000 Ω
TRANSCONDUCTANCE	0.011 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	7.5 W
MAXIMUM SCREEN DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	50 mA
<i>Published ratings and characteristics promoted from approved datasheet.</i>	

The RCA 6197 is a sharp-cutoff power pentode especially useful in pulse-amplifier applications.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen-grid voltage	150 V	ClassA
Grid voltage	-3 V	ClassA
Plate current	30 mA	ClassA
Screen-grid current	7 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	90000 ohm	—
Transconductance	11000 uS	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	650 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency Divider Plate Supply	250 V	Pulse; FrequencyDivider
Pulse Plate Current	30 mA	FrequencyDivider



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1971 RCA HB3 Binder 3 of 7

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

1971 RCA HB3 BINDER 3 OF 7

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	650 mA	Nominal
Maximum plate voltage	300 V	Promoted published value
Maximum screen voltage	250 V	Promoted published value
Maximum plate dissipation	7.5 W	Promoted published value
Maximum screen dissipation	2.5 W	Promoted published value
Maximum cathode current	50 mA	Promoted published value
Heater Voltage	6.3 V	Characteristics, Class A I Ampl ifier:
Plate Voltage	250 V	Characteristics, Class A I Ampl ifier:
Grid-No.2 Voltage	150 V	Characteristics, Class A I Ampl ifier:
Grid-No.1 Voltage -3 volts	3 V	Characteristics, Class A I Ampl ifier:
Plate Resistance	90000 ohm	Characteristics, Class A I Ampl ifier:

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11000 μS	Characteristics, Class A I Ampl ifier:
Plate Current	30 mA	Characteristics, Class A I Ampl ifier:
Grid-No.2 Current	7 mA	Characteristics, Class A I Ampl ifier:
voltage of -12 volts	100 V	Characteristics, Class A I Ampl ifier:
PLATE VOLTAGE	300 V	Characteristics, Class A I Ampl ifier:
GRID-No.3 (SUPPRESSOR) VOLTAGE	0 V	Characteristics, Class A I Ampl ifier:
GRID-No.2 (SCREEN) VOLTAGE	250 V	Characteristics, Class A I Ampl ifier:
GRID-No.1 (CONTROL-GRID) VOLTAGE	-50 V	Characteristics, Class A I Ampl ifier:
PLATE DISSIPATION	5 W	Characteristics, Class A I Ampl ifier:
GRID-No.2 INPUT	5 W	Characteristics, Class A I Ampl ifier:
CATHODE CURRENT	50 mA	Characteristics, Class A I Ampl ifier:
Heater negative with respect to cathode	180 V	Characteristics, Class A I Ampl ifier:
Heater positive with respect to cathode	180 V	Characteristics, Class A I Ampl ifier:
For cathode-bias operation	5 megohm	Characteristics, Class A I Ampl ifier:
Heater Current	690 mA	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Note	90 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	90000 ohm	Promoted published value
Transconductance	11000 μS	Promoted published value
Voltage	5 V	—
Plate Current (1)	46 mA	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Plate Current (2)	40 mA	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Plate Current (3)	100 A	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Grid-No.2 Current	9 mA	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Reverse Grid-No.1 Current	2 A	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
to cathode	40 A	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Transconductance	13000 μ S	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
voltage of	150 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
N0.1 voltage of	-3 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Note	3 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
N o.2 voltage of	0 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
Note u: With plate voltage of	3 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
grid-N o.2 voltage of	-9 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
x ote	3 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
grid-N o.2 voltage of	-12 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
grid-No.2 voltage of	-9 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
volts, and grid-xo.iresistor of	0.25 V	CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN
GRID-N°2 ~IC2~ MILLIAMPERES	2 A	AVERAGE PLATE CHARACTERISTICS
GRID -N?	150 V	AVERAGE PLATE CHARACTERISTICS
GRID-N41 (ZCI) MILLIAMPERES ~ _____	1 A	AVERAGE PLATE CHARACTERISTICS
PLATE (I~OR GRID- N'2(IC2) MILLIAMPERES	2 A	AVERAGE PLATE CHARACTERISTICS
PLATE VOLTS=300	300 V	AVERAGE CHARACTERISTICS