



ELECTRONIC TUBE REFERENCE

9001

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Seven-pin miniature sharp-cutoff UHF pentode electrically similar to type 954. Designed for fixed-gain ultra-high-frequency amplification, it combines compact construction with operation well into the UHF region.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BD	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

7BD - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.0014 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	100 V
MAXIMUM PLATE DISSIPATION	0.5 W
MAXIMUM SCREEN DISSIPATION	0.1 W
<i>Published promoted fields populated semantically; identical repeated sections compressed.</i>	

Seven-pin miniature sharp-cutoff UHF pentode electrically similar to type 954.

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
Maximum plate voltage	250 V	Published handbook rating
Maximum screen voltage	100 V	Published handbook rating
Plate voltage	250 V	ClassA
Screen voltage	100 V	ClassA
Control-grid bias	3 V	ClassA
Plate current	2 mA	ClassA
Screen current	0.7 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1000000 ohm	Published handbook characteristic
Transconductance	1400 μ S	Published handbook characteristic
Heater/filament voltage	6.3 V	Published heater/filament rating
Heater/filament current	150 mA	Published heater/filament rating

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	UHF Amplifier
Control-grid voltage	-3 V	UHF Amplifier
Screen voltage	100 V	UHF Amplifier
Plate current	2 mA	UHF Amplifier
Screen current	0.7 mA	UHF Amplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance minimum	1 MΩ	Section 1
Transconductance	1400 μS	Section 1



SOURCE DATA APPENDIX

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	150 mA	—
EquivalentElectricalType	954	—



SOURCE DATA APPENDIX

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid To Plate Capacitance	0.01 pF	Maximum;ExternalShield
Input Capacitance	3.6 pF	—
Output Capacitance	3 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1400 uS	PlateVoltage=250V



SOURCE DATA APPENDIX

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

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage	6.3 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Current	0.15	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 1-Grid – published value 1	1	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 1-Grid – published value 2	5	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 2 -Cathode – published value 1	2	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 2 -Cathode – published value 2	6	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 3 -Heater – published value 1	3	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 3 -Heater – published value 2	3	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 4 –Heater – published value 1	1	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 4 –Heater – published value 2	7	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 4 –Heater – published value 3	1	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Pin 4 –Heater – published value 4	9	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Dissipation	0.5 W	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Dissipation	0.1 W	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Voltage – published value 1	90 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Voltage – published value 2	250 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Voltaye – published value 1	90 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen Voltage – published value 2	100 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Grid Voltage – published value 1	-3 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Grid Voltage – published value 2	-3 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Resistance	1	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Transconductance – published value 1	1100	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Transconductance – published value 2	1400	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Current – published value 1	1.2 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Current – published value 2	2 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Current – published value 1	0.5 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Current – published value 2	0.7 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Voltage – published value 1	100 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Voltage – published value 2	250 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Voltage – published value 1	100 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Voltage – published value 2	100 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Vp ltage ! – published value 1	-5 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Grid Vp ltage ! – published value 2	-5 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Conversion Transconductance	550	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
plate and heater. The 9001 has two cathode leads in order	9001	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
SCREEN VOLTS(E C21=100	100 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
PLATE VOLTS = 250	250 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	0.01 mA	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Plate Voltage	250 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.
Screen Voltage	100 V	Published datasheet value; multiple numbers on a source row represent separate limits or operating conditions.

TUBE TINKER

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