

ELECTRONIC TUBE REFERENCE

6K7

Voltage - Pentode Remote Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Remote-cutoff RF/IF pentode designed for receiver front-end and intermediate-frequency stages. Its variable-mu characteristic permits effective automatic gain control across a wide range of received signal strengths.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7R	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7R - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – SH	A	SH – Internal Shield	CONNECTED
PIN2 – H	–	H – Heater	CONNECTED
PIN3 – P	A	P – Plate (Anode)	CONNECTED
PIN4 – G2	A	G2 – Screen Grid	CONNECTED
PIN5 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED
PIN8 – K	A	K – Cathode	CONNECTED
CAP1 – G1	A	G1 – Control Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	600000 Ω
TRANSCONDUCTANCE	0.00165 S
AMPLIFICATION FACTOR	990
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	140 V
MAXIMUM PLATE DISSIPATION	2.75 W
MAXIMUM SCREEN DISSIPATION	0.35 W
<i>Values promoted from the complete filename-matched Russian entry only.</i>	

Remote-cutoff RF/IF amplifier pentode for receiver front-end and intermediate-frequency stages.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1935 RCA All Metal Radio Tubes

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

1935 RCA ALL METAL RADIO TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Screen voltage	125 V	—
Grid-plate capacitance	0.005 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	7 mA	Plate250V;Screen100V
Screen current	1.7 mA	Plate250V;Screen100V
Grid voltage for mutual conductance 2 uS	-42.5 V	Plate250V;Screen100V
Input capacitance	7 pF	—
Output capacitance	12 pF	—



SOURCE OPERATING CONDITIONS

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1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	250 V	Published datasheet rating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum screen voltage	125 V	Published datasheet rating
Plate voltage	250 V	ClassA
Screen voltage	125 V	ClassA
Screen current	2.6 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	600000 ohm	Published datasheet characteristic
Transconductance	1650 μ S	Published datasheet characteristic
Heater voltage	6.3 V	Published heater rating
Heater current	300 mA	Published heater rating


SOURCE DATA APPENDIX

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	300 mA	Published nominal value
Transconductance	1650 μ S	Published operating characteristic
Amplification factor	990	Published operating characteristic
Grid voltage for 2 μ S transconductance	-52.5 V	Remote-cutoff control characteristic


SOURCE DATA APPENDIX

1950 Sylvania

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

1950 SYLVANIA
Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	600000 ohm	—
Transconductance	1650 μS	—
Amplification Factor	990	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	125 V	—
Maximum Plate Dissipation	2.75 W	—
Maximum Screen Dissipation	0.35 W	—
Plate Voltage	250 V	ClassA
Screen Voltage	125 V	ClassA
Plate Current	10.5 mA	ClassA



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

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	300 V	Published handbook rating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum screen voltage	150 V	Published handbook rating
Plate voltage	250 V	ClassA
Screen voltage	125 V	ClassA
Control-grid bias	3 V	ClassA
Plate current	10.5 mA	ClassA
Screen current	2.6 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	600000 ohm	Published handbook characteristic
Transconductance	1650 μ S	Published handbook characteristic
Heater voltage	6.3 V	Published heater rating
Heater current	300 mA	Published heater rating

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	7 pF	Published capacitance column
Output capacitance	12 pF	Published capacitance column
Grid-to-plate capacitance	0.005 pF	Published capacitance column


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Average characteristics
Screen Voltage	125 V	Average characteristics

Characteristic		
Parameter	Published Value	Condition / Note
Plate Current	10.5 mA	Average characteristics
Screen Current	2.6 mA	Average characteristics



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1981 Russian Tubes Katsnelson and Larionov

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

1981 RUSSIAN TUBES KATSNELSON AND LARIONOV

Section 1 · Pentode

Characteristic		
Parameter	Published Value	Condition / Note
Plate current	7 mA	Translated from Russian source; filename-matched entry only
Transconductance	1.45 mA/V	Translated from Russian source; filename-matched entry only
Plate resistance	1 MOhm	Translated from Russian source; filename-matched entry only
Maximum plate voltage	330 V	Translated from Russian source; filename-matched entry only
Maximum plate dissipation	8 W	Translated from Russian source; filename-matched entry only
Service life minimum	2000 h	Translated from Russian source; filename-matched entry only

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