

ELECTRONIC TUBE REFERENCE

6K7G

Voltage - Pentode Remote Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Glass-envelope version of the remote-cutoff 6K7 RF/IF amplifier pentode. It retains the variable-gain receiver function of the metal type while using conventional glass construction.

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	150 V
MAXIMUM PLATE DISSIPATION	2.75 W
MAXIMUM SCREEN DISSIPATION	0.35 W
<i>Published maximum ratings, characteristics, operating conditions and capacitances reviewed.</i>	

Glass version of the remote-cutoff 6K7 RF/IF amplifier pentode.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
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 OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cutoff characteristic	Variable-mu	—



SOURCE OPERATING CONDITIONS

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 μ S	—
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



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cutoff characteristic	Variable-mu	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF / IF amplification	—



SOURCE DATA APPENDIX

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	300 V	Published handbook rating
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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.005 pF	Published capacitance column



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	Point1
Screen-grid voltage	100 V	Point1
Control-grid voltage	-1 V	Point1
Plate current	9.5 mA	Point1
Screen-grid current	2.7 mA	Point1
Plate voltage	250 V	Point3
Screen-grid voltage	125 V	Point3
Plate current	10.5 mA	Point3

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1650 uS	Point1
Plate resistance	150000 Ohm	Point1
Control-grid cutoff voltage	-38 V	Point1
Transconductance	1650 uS	Point3
Plate resistance	600000 Ohm	Point3
Control-grid cutoff voltage	-52 V	Point3

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	5 pF	6K7G
Input capacitance	4.6 pF	6K7GT

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output capacitance	12 pF	—
Grid-to-plate capacitance maximum	0.007 pF	6K7G
Grid-to-plate capacitance maximum	0.005 pF	6K7GT

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