

ELECTRONIC TUBE REFERENCE

7C7

Voltage Pentode - Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Sharp-cutoff pentode designed for RF, IF, wide-band, or high-frequency voltage-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8V	BASE PINS	8
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

8V - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	2000000 Ω
TRANSCONDUCTANCE	0.0013 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	100 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM SCREEN DISSIPATION	0.1 W
MAXIMUM HEATER-CATHODE VOLTAGE	90 V
<i>Published promoted fields populated by semantic heading; identical repeated physical sections compressed.</i>	

The 7C7 is a sharp-cutoff general-purpose pentode amplifier using lock-in construction for RF, IF and voltage-amplifier applications.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	—
Plate Current	2 mA	—
Screen Voltage	100 V	—
Screen Current	0.5 mA	—
Control Grid Voltage	-3 V	—
Cathode Bias Resistor	1200 ohm	—
Plate Resistance	2 Mohm	—
Transconductance	1300 μ S	—
Cutoff Grid Voltage	-7 V	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	7 V	Nominal
HeaterCurrentNominal	160 mA	Nominal
Plate Voltage	250 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen Voltage	100 V	ClassA


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	5.5 pF	Section1
Output capacitance	6.5 pF	Section1
Grid-to-plate capacitance	0.007 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	250 V	ClassA
Typical screen voltage	100 V	ClassA
Typical grid voltage	-3 V	ClassA
Typical plate current	2 mA	ClassA
Typical screen current	0.5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	2000000 Ohm	Section1
Transconductance	1300 uS	Section1


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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2275 μ S	PlateVoltage=100V



SOURCE DATA APPENDIX

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_voltage	250 V	ClassA
Screen_voltage	100 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_current	7 mA	ClassA
Transconductance	2275 μ S	ClassA
Plate_resistance	400000 ohm	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.005 pF	—
Input capacitance	6.5 pF	—
Output capacitance	7 pF	—