



ELECTRONIC TUBE REFERENCE

6AG5

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Sharp-cutoff miniature pentode designed for compact RF or IF amplification to approximately 400 MHz. Its small size and high-frequency capability make it a versatile fixed-gain VHF signal tube.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E7-1	BASE PINS	7
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	800000 Ω
TRANSCONDUCTANCE	0.005 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	30 mA
Sharp-cutoff RF pentode; promoted values use the pentode connection.	

Sharp-cutoff pentode for compact radio RF or IF amplification to 400 MHz.



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;PentodeConnection
Screen-grid voltage	150 V	ClassA;PentodeConnection
Cathode resistor	180 ohm	ClassA;PentodeConnection
Plate current	6.5 mA	ClassA;PentodeConnection
Screen-grid current	2 mA	ClassA;PentodeConnection
Plate voltage	250 V	ClassA;TriodeConnection
Cathode resistor	820 ohm	ClassA;TriodeConnection
Plate current	5.5 mA	ClassA;TriodeConnection
Plate resistance	10000 ohm	ClassA;TriodeConnection
Transconductance	3800 uS	ClassA;TriodeConnection
Amplification factor	42	ClassA;TriodeConnection



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
MaximumUsefulFrequency	400 MHz	RFAmplifier



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	300 mA	—
Plate Voltage	250 V	—
Screen Voltage	150 V	—
Grid Voltage	-2 V	—
Plate Current	10.5 mA	—
Screen Current	4.2 mA	—
Transconductance	5000 uS	—
Plate Resistance	500000 ohm	—
GridToPlateCapacitanceMaximum	0.0035 pF	—
Input Capacitance	5.5 pF	—
Output Capacitance	5 pF	—



1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltageNominal	6.3 V	—
HeaterOrFilamentCurrentNominal	300 mA	—
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	150 V	—
Maximum Plate Dissipation	2 W	—
Maximum Screen Dissipation	0.5 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	800000 Ohm	—
Transconductance	5000 uS	—



SOURCE DATA APPENDIX

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.03 pF	Capacitance
and Internal Shield	1.8 pF	Capacitance
Grid No.1 to Plate and Grid No.2	2.5 pF	Capacitance

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode, Heater, Grid No.3, and Internal Shield	3.6 pF	Capacitance
Grid No.2 to Cathode, Heater, Grid No.3, and Internal Shield	3 pF	Capacitance
Plate to Cathode, Heater, Grid No.3, and Internal Shield	3 pF	Capacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 (Screen-Grid)	300 V	MaximumRatings
Grid-No.I (Control-Grid)	0 V	MaximumRatings
Plate Dissipation	2.5 W	MaximumRatings;PublishedValue1
Plate Dissipation	2 W	MaximumRatings;PublishedValue2
For grid-No. 2 voltages up to 150 volts	0.5 V	MaximumRatings

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	180 V	Characteristics;PublishedValue1
Plate Supply Voltage	250 V	Characteristics;PublishedValue2
Plate Supply Voltage	100 V	Characteristics;PublishedValue3
Plate Supply Voltage	125 V	Characteristics;PublishedValue4
Plate Supply Voltage	250 V	Characteristics;PublishedValue5
Grid-No.2 Supply Voltage	100 V	Characteristics;PublishedValue1
Grid-No.2 Supply Voltage	125 V	Characteristics;PublishedValue2
Grid-No.2 Supply Voltage	150 V	Characteristics;PublishedValue3
Cathode-Bias Resistor	330 ohm	Characteristics;PublishedValue1
Cathode-Bias Resistor	820 ohm	Characteristics;PublishedValue2
Cathode-Bias Resistor	180 ohm	Characteristics;PublishedValue3
Cathode-Bias Resistor	100 ohm	Characteristics;PublishedValue4
Cathode-Bias Resistor	180 ohm	Characteristics;PublishedValue5
Plate Resistance (Approx.)	0.008 megohm	Characteristics;PublishedValue1
Plate Resistance (Approx.)	0.01 megohm	Characteristics;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	0.6 megohm	Characteristics;PublishedValue3
Plate Resistance (Approx.)	0.5 megohm	Characteristics;PublishedValue4
Plate Resistance (Approx.)	0.8 megohm	Characteristics;PublishedValue5
Plate Current	7 mA	Characteristics;PublishedValue1
Plate Current	5.5 mA	Characteristics;PublishedValue2
Plate Current	4.5 mA	Characteristics;PublishedValue3
Plate Current	7.2 mA	Characteristics;PublishedValue4
Plate Current	6.5 mA	Characteristics;PublishedValue5
Grid-No.2 Current	1.4 mA	Characteristics;PublishedValue1
Grid-No.2 Current	2.1 mA	Characteristics;PublishedValue2
Grid-No.2 Current	2 mA	Characteristics;PublishedValue3

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker