

ELECTRONIC TUBE REFERENCE

4JD6

Voltage Pentode - Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Sharp-cutoff pentode designed for television IF, picture-IF, video, or VHF tuner amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9PM	BASE PINS	9
NOMINAL HEATER	4.5 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9PM - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	K – Cathode	CONNECTED
PIN2	–	G1 – Control Grid	CONNECTED
PIN3	–	K – Cathode	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN7	–	P – Plate (Anode)	CONNECTED
PIN8	–	G2 – Screen Grid	CONNECTED
PIN9	–	G3 – Suppressor Grid	CONNECTED
PIN9	–	IS – Internal Screen	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	160000 Ω
TRANSCONDUCTANCE	0.014 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.7 W
Reference/equivalence-only source: ratings/characteristics for this section are not reproduced; missing promoted values intentionally not inferred from the external 6JD6 datasheet.	

Sharp-cutoff frame-grid miniature pentode used as a television IF amplifier around 40 MHz.



SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	—
Screen-grid voltage	125 V	—
Cathode bias resistor	56 Ohm	—
Plate current	15 mA	—
Screen-grid current	4 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	160000 Ohm	—
Transconductance	14000 uS	—
Control-grid cutoff voltage	-4.5 V	At600uS



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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	4.5 V	—
Heater Current	450 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	14000 μ S	RepresentativePublishedPoint

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Plate Dissipation	2.5 W	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID	0.019 pF	GRID 1 TO PLATE -MAX. 0.019 pf

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER WARM-UP TIME	11 s	Average Characteristics HEATER WARM-UP TIME 11 SECONDS
LIMITS OF SUPPLIED CURRENT	30 mA	Average Characteristics LIMITS OF SUPPLIED CURRENT 450 -* 30 mA
PLATE VOLTAGE	330 V	Maximum Ratings PLATE VOLTAGE 330 VOLTS
GRID	330 V	Maximum Ratings GRID 2 SUPPLY VOLTAGE 330 VOLTS
POSITIVE DC GRID	0 V	Maximum Ratings POSITIVE DC GRID 1 VOLTAGE 0 VOLTS
PLATE DISSIPATION	2.5 W	Maximum Ratings PLATE DISSIPATION 2.5 WATTS
PLATE VOLTAGE	125 V	Maximum Ratings PLATE VOLTAGE 125 VOLTS
GRID	125 V	Maximum Ratings GRID 2 VOLTAGE 125 VOLTS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
CATHODE	56 ohm	Maximum Ratings CATHODE 81AS RESISTOR 56 OHMS
PLATE CURRENT	15 mA	Maximum Ratings PLATE CURRENT 15 mA
GRID	4 mA	Maximum Ratings GRID 2 CURRENT 4 mA
GRID	-4.5 V	Maximum Ratings GRID 1 VOLTAGE FOR Gm = 600 NMHOS -4.5 VOLTS
GRID	1 V	Average Characteristics GRID 1 VOLTS
GRID	2 V	Average Characteristics GRID 2 VOLTS



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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
Heater Voltage	4.5 V	—
Heater Current	450 mA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7
Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	IFAmplifier

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 2 voltage	125 V	IFAmplifier
Cathode bias resistor	56 ohm	IFAmplifier
Plate current	15 mA	IFAmplifier
Grid 2 current	4 mA	IFAmplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater warm-up time	11 s	ControlledWarmUp



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak value	200 V	Other;PublishedValue1
Peak value	200 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
Plate Voltage	330 V	MaximumRating
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0 V	MaximumRating
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	MaximumRating
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	MaximumRating
Plate Dissipation	2.5 W	MaximumRating
For grid-No.2 voltages up to 165 volts	0.6 V	MaximumRating
©2	0 V	MaximumRating;PublishedValue1
©2	5 V	MaximumRating;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTS	5 V	MaximumRating
For fixed-bias operation	0.25 megohm	MaximumCircuitValue
For cathode-bias operation	1 megohm	MaximumCircuitValue

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.019 pF	Capacitance
Internal Shield	8.2 pF	Capacitance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	125 V	Characteristic
Grid-No.3 Voltage	0 V	Characteristic
Grid-No.2 Supply Voltage	125 V	Characteristic
Grid-No.1 Supply Voltage	0 V	Characteristic
Cathode-Bias Resistor	56 ohm	Characteristic
Plate Resistance (Approx.)	160000 ohm	Characteristic
Transconductance	14000 uS	Characteristic
Plate Current	15 mA	Characteristic
Grid-No.2 Current	4 mA	Characteristic