



ELECTRONIC TUBE REFERENCE

6EB8

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Miniature high-mu triode plus sharp-cutoff pentode for television receivers. The pentode provides video-output amplification while the triode serves sync-separator, sync-clipper, or phase-inverter functions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9DX	BASE PINS	9
NOMINAL HEATER	6.3 V / 750 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9DX - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 2K	B	K – Cathode	CONNECTED
PIN2 – 2G1	B	G1 – Control Grid	CONNECTED
PIN3 – 2P	B	P – Plate (Anode)	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – 1G3	A	G3 – Suppressor Grid	CONNECTED
PIN6 – IS	A	IS – Internal Screen	CONNECTED
PIN6 – 1K	A	K – Cathode	CONNECTED
PIN7 – 1G1	A	G1 – Control Grid	CONNECTED
PIN8 – 1G2	A	G2 – Screen Grid	CONNECTED
PIN9 – 1P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	75000 Ω
TRANSCONDUCTANCE	0.0125 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM SCREEN DISSIPATION	1.1 W
MAXIMUM CATHODE CURRENT	40 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>Pentode video-amplifier section; screen voltage governed by chart.</i>	

SECTION2 Triode	
PLATE RESISTANCE	37000 Ω
TRANSCONDUCTANCE	0.0027 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	12 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>High-mu triode section.</i>	

Miniature high-mu triode-sharp-cutoff pentode used in television receivers; the pentode is used as a video-output amplifier and the triode in sync-separator, sync-clipper, and phase-inverter circuits.



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PentodeGridToPlateCapacitance	0.1 pF	Section2;Maximum

1961 TUNG SOL

Section 2 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TriodeGridToPlateCapacitance	4.4 pF	Section1



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
Pentode plate resistance	75000 ohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid2 dissipation maximum	1.1 W	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Sharp-cutoff amplifier	—

1965 WESTINGHOUSE DATA BOOK

Section 2 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode amplification factor	100	—
Triode plate resistance	37000 ohm	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Sync separator / phase inverter	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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	200 V	PentodeSection;VideoAmplifier
Grid 2 voltage	125 V	PentodeSection;VideoAmplifier
Plate current	25 mA	PentodeSection;VideoAmplifier
Grid 2 current	7 mA	PentodeSection;VideoAmplifier

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	TriodeSection
Grid 1 voltage	-2 V	TriodeSection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	2 mA	TriodeSection


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1968 General Electric Co

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1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	200 V	PentodeSection ClassA
Screen Voltage	125 V	PentodeSection ClassA
Plate Current	25 mA	PentodeSection ClassA

1968 GENERAL ELECTRIC CO

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	200 V	TriodeSection ClassA
Plate Current	2 mA	TriodeSection ClassA


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 supply voltage	200 V	Pentode;ClassA
Screen supply voltage	125 V	Pentode;ClassA
Cathode resistor	68 ohm	Pentode;ClassA
Plate current	25 mA	Pentode;ClassA
Screen current	7 mA	Pentode;ClassA
Maximum plate voltage	330 V	Pentode
Maximum screen supply voltage	330 V	Pentode
Plate dissipation	5 W	Pentode
Screen input	1.1 W	Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	7500 ohm	Pentode
Transconductance	12500 uS	Pentode

1971 RCA HB3 BINDER 4 OF 7

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	450 mA	—
Plate supply voltage	250 V	Triode;ClassA
Grid voltage	-2 V	Triode;ClassA
Plate current	2 mA	Triode;ClassA
Maximum plate voltage	330 V	Triode
Plate dissipation	1 W	Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	100	Triode
Plate resistance	37000 ohm	Triode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2700 μ S	Triode



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1975 RCA RC30

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1975 RCA RC30

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.1 pF	Section2
Grid No.1 to Cathode/Heater/Grid No.2/Grid No.3/Internal Shield	11 pF	Section2
Plate to Cathode/Heater/Grid No.2/Grid No.3/Internal Shield	4.2 pF	Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	200 V	ClassA
Grid-No.2 Supply Voltage	125 V	ClassA
Cathode-Bias Resistor	68 ohm	ClassA
Plate Current	25 mA	ClassA
Grid-No.2 Current	7 mA	ClassA

1975 RCA RC30

Section 2 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	4.4 pF	Section1
Grid to Cathode and Heater	2.4 pF	Section1
Plate to Cathode and Heater	0.36 pF	Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	250 V	ClassA
Grid Voltage	-2 V	ClassA
Plate Current	2 mA	ClassA