

ELECTRONIC TUBE REFERENCE

6JN8

Voltage - Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Triode-pentode with a sharp-cutoff pentode intended for television horizontal-deflection oscillator service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9AE	BASE PINS	9
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9AE - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.55 W
<i>Sharp-cutoff pentode horizontal-deflection oscillator section.</i>	

SECTION2 Triode	
PLATE RESISTANCE	5400 Ω
TRANSCONDUCTANCE	0.0085 S
AMPLIFICATION FACTOR	46
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
<i>Medium-mu triode section.</i>	

The 6JN8 combines a medium-mu triode with a sharp-cutoff pentode; the pentode section is intended for horizontal-deflection oscillator service in television receivers.

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
Plate Voltage	125 V	Pentode typical operation
Screen Voltage	125 V	Pentode typical operation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	12 mA	Pentode typical operation
Screen Current	4 mA	Pentode typical operation

1961 TUNG SOL

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	Triode average characteristics

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	13.5 mA	Triode average characteristics

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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	125 V	PentodeSection;HorizontalOscillator
Grid 2 voltage	125 V	PentodeSection;HorizontalOscillator
Grid 1 voltage	-1 V	PentodeSection;HorizontalOscillator
Plate current	12 mA	PentodeSection;HorizontalOscillator
Grid 2 current	4 mA	PentodeSection;HorizontalOscillator

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	TriodeSection
Grid 1 voltage	-1 V	TriodeSection
Plate current	13.5 mA	TriodeSection

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



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	5.5 pF	—
Output Capacitance	3.4 pF	—
Input Capacitance	3.2 pF	—
Output Capacitance	2.2 pF	—

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
Maximum Plate Voltage	300 V	Section2
Maximum Screen Voltage	300 V	Section2
Maximum Plate Dissipation	2.5 W	Section2
Maximum Screen Dissipation	0.55 W	Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	200000 ohm	Section2
Transconductance	7500 uS	Section2

1975 RCA RC30

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak value	200 V	Other;PublishedValue1
Peak value	0 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
Plate Voltage	300 V	MaximumRating;PublishedValue1
Plate Voltage	300 V	MaximumRating;PublishedValue2
–	300 V	MaximumRating
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	MaximumRating;PublishedValue1
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 V	MaximumRating;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation	2.5 W	MaximumRating;PublishedValue1
Plate Dissipation	2.5 W	MaximumRating;PublishedValue2
For grid-No.2 voltages up to 150 volts	0.55 V	MaximumRating
For fixed-bias operation	2.2 megohm	MaximumCircuitValue;PublishedValue1
For fixed-bias operation	2.2 megohm	MaximumCircuitValue;PublishedValue2
For cathode-bias operation	2.2 megohm	MaximumCircuitValue;PublishedValue1
For cathode-bias operation	2.2 megohm	MaximumCircuitValue;PublishedValue2
Maximum Plate Voltage	300 V	Section1
Maximum Plate Dissipation	2.5 W	Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.01 pF	Capacitance
Shield	5.5 pF	Capacitance
Shield	3.4 pF	Capacitance
Grid to Plate	1.7 pF	Capacitance
and Internal Shield	3.2 pF	Capacitance
and Internal Shield	2.2 pF	Capacitance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	Characteristic;PublishedValue1
Plate Voltage	125 V	Characteristic;PublishedValue2
Grid-No.2 Voltage	125 V	Characteristic
Grid-No.1 Voltage	-1 V	Characteristic;PublishedValue1
Grid-No.1 Voltage	-1 V	Characteristic;PublishedValue2
Plate Resistance (Approx.)	5400 ohm	Characteristic;PublishedValue1
Plate Resistance (Approx.)	200000 ohm	Characteristic;PublishedValue2
Plate Current	13.5 mA	Characteristic;PublishedValue1
Plate Current	12 mA	Characteristic;PublishedValue2
Grid-No.2 Current	4 mA	Characteristic
10 /iA	-8 V	Characteristic
Plate Resistance	5400 ohm	Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8500 μ S	Section1
Amplification Factor	46	Section1

TUBE TINKER

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