ELECTRONIC TUBE REFERENCE

6EJ7

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
PENTODE

> Sharp-cutoff very-high-transconductance pentode for fixed-gain IF amplification in color and monochrome television receivers.

General characteristics

BASE DESIGNATION	9A0	**BASE PINS**	9
NOMINAL HEATER	6.3 V / 450 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Pentode

PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.01 S
AMPLIFICATION FACTOR	60
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	25 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
WARM-UP TIME	11 s

Published promoted fields populated from the printed semantic headings.

> Sharp-cutoff pentode used as a high-transconductance IF amplifier in color and black-and-white television receivers.

SOURCE OPERATING CONDITIONS

1950 Sylvania

SOURCE PDF

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

1950 SYLVANIA

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage..... 3.4 4.4 6.3 Volts	**6.3 V**	Heater Voltage..... 3.4 4.4 6.3 Volts
Heater Current. .. .. 600 450 300 Ma	**300 mA**	Heater Current. .. .. 600 450 300 Ma
Output: pto(h+k+g24+g34+1.8)..... 3 uuf	**3 pF**	Output: pto(h+k+g24+g34+1.8)..... 3 uuf
Grid No.3 Voltage. . .....coiviiiin... 0 Volts	**0 V**	Grid No.3 Voltage. . .....coiviiiin... 0 Volts
Grid No. 2 Voltage.	**2 V**	Grid No. 2 Voltage. . .....
Grid No. 1 Voltage. .. ..ooiiiirinnn .. —-2.5 Voits	**1 V**	Grid No. 1 Voltage. .. ..ooiiiirinnn .. —-2.5 Voits
Plate Current. ....ot .. 10 Ma	**10 mA**	Plate Current. ....ot .. 10 Ma
Grid No. 2 Current. . ..., .. 4.1 Ma	**4.1 mA**	Grid No. 2 Current. . ..., .. 4.1 Ma
Transconductance. . . ..coouieuneneiniann.. 15,000 umhos	**15 umhos**	Transconductance. . . ..coouieuneneiniann.. 15,000 umhos
Plate Resistance (approx.).....oou.n. 0.35 Megohm	**0.35 Megohm**	Plate Resistance (approx.).....oou.n. 0.35 Megohm

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage with Ib =0Ma..... ... 550 Volts Max.	**550 V**	Plate Voltage with Ib =0Ma..... ... 550 Volts Max.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No. 2 Voltage with [c2 = 0Ma..... 550 Volts Max.	**550 V**	Grid No. 2 Voltage with [c2 = 0Ma..... 550 Volts Max.
Grid No.2 Voltage. . . .. 250 Volts Max.	**250 V**	Grid No.2 Voltage. . . .. 250 Volts Max.
Plate Dissipation. ..... 2.5 Watts Max.	**2.5 W**	Plate Dissipation. ..... 2.5 Watts Max.
Grid No. 2 Dissipation. ..... 0.9 Watts Max.	**0.9 W**	Grid No. 2 Dissipation. ..... 0.9 Watts Max.
Cathode Current. .. .. 25 Ma Max.	**25 mA**	Cathode Current. .. .. 25 Ma Max.
Grid No. 1 Circuit Resistance..... 1.0 Megohm Max.	**1 Megohm**	Grid No. 1 Circuit Resistance..... 1.0 Megohm Max.

SOURCE OPERATING CONDITIONS

1961 Tung Sol

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1961 TUNG SOL

Section 1 · Pentode

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	**10000 uS**	Typical

TUBE TINKER ELECTRON TUBE DATABASE
SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Amperex Condensed

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1963 AMPEREX CONDENSED

Section 1 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**200 V**	IFAmplifier
Screen voltage	**200 V**	IFAmplifier
Control-grid voltage	**-2.5 V**	IFAmplifier
Plate current	**10 mA**	IFAmplifier
Screen current	**4.1 mA**	IFAmplifier

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate resistance	**350000 Ω**	IFAmplifier
Transconductance	**15000 µS**	IFAmplifier
Amplification factor	**60**	IFAmplifier

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 2 of 4

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1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**200 V**	ClassA1;IF-Amplifier
Grid 2 voltage	**200 V**	ClassA1;IF-Amplifier
Grid 1 voltage	**-2.5 V**	ClassA1;IF-Amplifier
Plate current	**10 mA**	ClassA1;IF-Amplifier

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 2 current	**4.1 mA**	ClassA1;IF-Amplifier
Maximum no-current plate voltage	**550 V**	PlateCurrent=0

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-2-to-grid-1 amplification factor	**60**	ClassA1

SOURCE OPERATING CONDITIONS

1967 Mullard Receiving and Amplifying Valves

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

1967 MULLARD RECEIVING AND AMPLIFYING VALVES

Section 1 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Ci n	**10 pF**	Published in approved EF184 target datasheet entry; Section1
Co ut	**3 pF**	Published in approved EF184 target datasheet entry; Section1
Cg l - g 2	**2.8 pF**	Published in approved EF184 target datasheet entry; Section1
P g2 max	**900 mW**	Published in approved EF184 target datasheet entry; Section1
T b u l b max	**180 °C**	Published in approved EF184 target datasheet entry; Section1
gm =2	**2 mA**	Published in approved EF184 target datasheet entry; Section1

SOURCE DATA APPENDIX

1971 RCA HB3 Binder 4 of 7

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1971 RCA HB3 BINDER 4 OF 7

Section 1 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**6.3 V**	—
Heater current	**300 mA**	—
Plate voltage	**200 V**	ClassA
Screen voltage	**200 V**	ClassA
Grid voltage	**-2.5 V**	ClassA
Plate current	**10 mA**	ClassA
Screen current	**4.1 mA**	ClassA
Maximum plate voltage	**250 V**	—
Maximum screen voltage	**250 V**	—
Maximum cathode current	**25 mA**	—
Plate dissipation	**2.5 W**	—

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate resistance	**350000 ohm**	ClassA
Transconductance	**15000 uS**	ClassA

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-to-plate capacitance	**0.005 pF**	—

SOURCE OPERATING CONDITIONS

1975 RCA RC30

SOURCE PDF

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**
Heater Voltage (ac/dc) 3.4 4.4	**6.3 V**	Published in approved XF184 target datasheet entry; Section1
Heater Current 0.6 0.45	**300 mA**	Published in approved XF184 target datasheet entry; Section1
Plate Supply Voltage B	**50 V**	Published in approved XF184 target datasheet entry; Section1
Plate Voltage	**250 V**	Published in approved XF184 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Supply Voltage	**550 V**	Published in approved XF184 target datasheet entry; Section1
Grid-No.2 Voltage	**250 V**	Published in approved XF184 target datasheet entry; Section1
Cathode Current	**25 mA**	Published in approved XF184 target datasheet entry; Section1
Plate Dissipation	**2.5 W**	Published in approved XF184 target datasheet entry; Section1
Grid-No.2 Input	**0.9 W**	Published in approved XF184 target datasheet entry; Section1
Plate Voltage 190	**200 V**	Published in approved XF184 target datasheet entry; Section1
Grid-No.2 Voltage 190	**200 V**	Published in approved XF184 target datasheet entry; Section1
Grid-No. 1 Voltage —2.35	**-2.5 V**	Published in approved XF184 target datasheet entry; Section1
Grid-No.l-Circuit Resistance	**1 MΩ**	Published in approved XF184 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Internal Shield	**10 pF**	Published in approved XF184 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Internal Shield	**3 pF**	Published in approved XF184 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Resistance (Approx.) 0.35	**0.35 MΩ**	Published in approved XF184 target datasheet entry; Section1
Transconductance 15000	**15000 µS**	Published in approved XF184 target datasheet entry; Section1
Plate Current 10	**10 mA**	Published in approved XF184 target datasheet entry; Section1
Grid-No.2 Current 4.1	**-4.1 mA**	Published in approved XF184 target datasheet entry; Section1

Tube Tinker

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