



ELECTRONIC TUBE REFERENCE

PL508

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Power pentode designed for color-television line-output and horizontal-deflection amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9D	BASE PINS	9
NOMINAL HEATER	17 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	10000 Ω
TRANSCONDUCTANCE	0.009 S
MAXIMUM PLATE VOLTAGE	400 V
MAXIMUM SCREEN VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	100 mA
<i>Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed when applicable.</i>	

Power pentode for color-television line-output/line-deflection amplification. The supplied French datasheet was translated to English for descriptive output.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	190 V	—
Screen-grid voltage	190 V	—
Plate current	60 mA	—
Screen-grid current	5 mA	—
Grid voltage	-17 V	—
Transconductance	9000 μ S	—
Plate resistance	10 k Ω m	—
Peak plate current	320 mA	Pulse

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive plate voltage	2.5 kV	VerticalDeflection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-grid capacitance	1.4 pF	—
Grid-heater capacitance	0.2 pF	—

1968 Mazda Belvu

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

1968 MAZDA BELVU
Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TEnSiONn- FÎLAMENT L..... uresersereerensentereseenençneEünnnn-++=*2+n+be Vvf	18.5 V	—
Courant fîlAment srrcessesercesmsecasessssssuursansareusees If	300 mA	—
Tension d'anode	190 V	—
Tension de grille n° 2	190 V	—
Tension de grille n° 1.....seesemeenemmsemsemmsavees	-17 V	—
Courant d'ANO@.. s mmreercorerer sovoercorsm0ca se aasa sn ce0s	0 s	—
Courant de grille n° Z vessererseenseneseenen ars en sesees s00e	3 mA	—
Tension d'anode en fin de balayage c Va	70 V	—
Tension de grille n° 2 Ve,	190 V	—
Tension de grille n° 1 Vgs	-5 V	—
Courant d'anode d@ CrÊtE ceerer vsacaseancennes conasosene en Iker	230 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacité grille n° 1/ filament ... Cg:/f	200 mpF	—
Tension d'anode à courant nul s seesensesseesesesass Va bl	700 V	—
crçn en senm su se seemceca se Va	400 V	—
Tension d'anode de crête Vacr	2.5 kV	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Dissipation d'anode Pa	12 W	—
Tension de grille n° 2 à courant nul	700 V	—
Tension de grille n° 2 s Vez	275 V	—
Dissipation de grille n° 2 ee Pez	2.5 W	—
Courant de cathode Ik	100 mA	—
Tension entre le filament et la Cathode s Vfk	220 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacité anode/ grille n° 1 miversimnemeses Ca/ g;	1.8 pF	—



SOURCE OPERATING CONDITIONS

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1972 Philips Receiving Tubes

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

1972 PHILIPS RECEIVING TUBES

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	17 V	Published nominal value
Heater current	300 mA	Published nominal value
Transconductance	90000 μ S	Published operating characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	12 W	Published maximum rating
Maximum peak anode voltage	2.5 kV	Pulse duration $\leq$ 5% cycle, max 1 ms



SOURCE OPERATING CONDITIONS

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1973 Mazda Valves Binder 2

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

1973 MAZDA VALVES BINDER 2

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	17 V	Published nominal value
Heater current	300 mA	Published nominal value

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	12 W	Published maximum rating
Maximum peak anode voltage	2.5 kV	Pulse duration <=5% cycle, max 1 ms



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	17 V	—
Heater current	300 mA	—
Heater current If 300 mA	300 a	Heater current If 300 mA
Heater voltage Vi 17 vV	17 a	Heater voltage Vi 17 vV
Anode voltage v, 50 Vq 190 V	190 A	Anode voltage v, 50 Vq 190 V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.2 voltage Vg2 190 Vg2 190 V	2 v	Grid No.2 voltage Vg2 190 Vg2 190 V
Grid No.1 voltage Vgl -1 Vgl -17 Vv	-17 v	Grid No.1 voltage Vgl -1 Vgl -17 Vv
Anode current Iap 320 Iy 60 mA	60 A	Anode current Iap 320 Iy 60 mA
Grid No.2 current Igz approx. 60 Igz 5 mA	2 a	Grid No.2 current Igz approx. 60 Igz 5 mA
tube deterioration during life and decrease of the mains voltage to 10 % below the	10 a	tube deterioration during life and decrease of the mains voltage to 10 % below the
Anode voltage vV, 70V	70 A	Anode voltage vV, 70V
Grid No.2 voltage Vg2 200 V	2 v	Grid No.2 voltage Vg2 200 V
Grid No.1 voltage Vgl -5V	1 v	Grid No.1 voltage Vgl -5V
> 600 Hz. The equivalent interference voltage at grid No.1 will than be < 25 mV	600 Hz	> 600 Hz. The equivalent interference voltage at grid No.1 will than be < 25 mV.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode current, average I, max. 100 mA	100 a	Cathode current, average I, max. 100 mA
Anode dissipation Wy max. 12 W	12 A	Anode dissipation Wy max. 12 W
Anode to grid No. 1 Cagl max. 1.6 pF	1.6 A	Anode to grid No. 1 Cagl max. 1.6 pF
Grid No. 1 to heater gif max. 0.2 pF	1 a	Grid No. 1 to heater gif max. 0.2 pF
Anode peak current Iap 230 mA	230 A	Anode peak current Iap 230 mA
Anode voltage Vao max. 700 V	700 A	Anode voltage Vao max. 700 V
Anode peak voltage max. 2.5 kV 1)	1 A	Anode peak voltage max. 2.5 kV 1)
Grid No.2 voltage max. 700 Vv	2 v	Grid No.2 voltage max. 700 Vv
Anode dissipation max. 12 W	12 A	Anode dissipation max. 12 W
Grid No.2 dissipation max. 3 W	2 s	Grid No.2 dissipation max. 3 W

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode current max. 100 mA	100 a	Cathode current max. 100 mA
Grid No.1 resistor, fixed bias max. 1 MQ	1 s	Grid No.1 resistor, fixed bias max. 1 MQ
Cathode to heater voltage max. 220V	220 a	Cathode to heater voltage max. 220V

TUBE TINKER

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