



ELECTRONIC TUBE REFERENCE

PL81A

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Line-output pentode designed for horizontal-deflection service in portable television receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9D	BASE PINS	9
NOMINAL HEATER	21.5 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	11500 Ω
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	4.9
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	7.5 W
MAXIMUM CATHODE CURRENT	180 mA
Line-output pentode; dissipation ratings are chart-defined in the source and pulse ratings retained as parameters.	

Line-output pentode for portable television receivers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Characteristic plate voltage	170 V	—
Characteristic screen voltage	170 V	—
Characteristic grid voltage	-24.5 V	—
Plate current	45 mA	—
Screen current	2.2 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	14 pF	—
Output capacitance	6 pF	—
Plate-grid capacitance maximum	0.8 pF	—
Grid-heater capacitance maximum	0.2 pF	—
Plate-cathode capacitance maximum	0.1 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak plate voltage maximum	7000 V	Pulse
Flyback cutoff grid voltage minimum	-120 V	Pulse

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	170 V	—
Screen-grid voltage	170 V	—
Grid voltage	-24.5 V	—
Plate current	45 mA	—
Screen-grid current	2.2 mA	—
Transconductance	6000 μ S	—
Plate resistance	11.5 k Ω	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	14 pF	—
Output capacitance	6 pF	—
Plate-grid capacitance	0.8 pF	—
Grid-heater capacitance	0.2 pF	—
Plate-cathode capacitance	0.1 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	650 V	HorizontalDeflection
Peak plate voltage	7 kV	HorizontalDeflection
Screen-grid supply voltage	550 V	HorizontalDeflection
Peak grid voltage	1 kV	HorizontalDeflection



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	21.5 V	Published nominal value
Heater current	300 mA	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	7.5 W	Published maximum rating
Maximum positive peak anode voltage	7 kV	Pulse duration <=22% cycle, max 18 us

TUBE TINKER

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