



ELECTRONIC TUBE REFERENCE

PCL83

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Power-output pentode designed for television frame/vertical time-base output and audio power-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	12.6 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	7700 Ω
TRANSCONDUCTANCE	0.0022 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Frame blocking-oscillator triode section.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	53000 Ω
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	10
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	5.4 W
MAXIMUM SCREEN DISSIPATION	1.2 W
MAXIMUM CATHODE CURRENT	45 mA
<i>Frame output pentode section.</i>	

TriodePentode; electrical ratings and operating data extracted from the supplied Mullard datasheet.

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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	12.6 V	—
HeaterOrFilamentCurrent	300 mA	—
Plate Voltage	250 V	—
Plate Current	10.5 mA	—
Grid Voltage	-8.5 V	—
Transconductance	2.2 mA/V	—
Plate Resistance	7.7 kohm	—
Amplification Factor	17	—

1963 MULLARD

Section 2 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	170 V	—
Screen Voltage	170 V	—
Plate Current	30 mA	—
Screen Current	5 mA	—
Grid Voltage	-9.5 V	—
Transconductance	5.5 mA/V	—
Plate Resistance	53 kohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakPositivePlateVoltageMaximum	2000 V	FrameOutput

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current Ih	3 A	—
Heater Voltage Vh	126 V	—
Maximum Anode Dissipation pa(max) 3.5	54 W	—
Maximum Screen Grid Dissipation pg2(max) —	12 W	—
Maximum Anode Supply Voltage Va(b)max 550	550 V	—
Maximum Anode Voltage Va(max) 250	250 V	—
Maximum Peak Positive Anode Voltage va(pk)max —	20 kV	—
Maximum Screen Grid Supply Voltage V82 (b)max —	550 V	—
Maximum Screen Grid Voltage V82 (max) —	250 V	—
Heater Positive 100	100 V	—
Maximum Cathode Current Ik(max) 15	45 mA	—
Control Grid to Heater cgl _h —	4 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Speech and Music —	2.4 W	—
Input n 23	5.7 pF	—
Output Gout 032	4.7 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to Control Grid ca.gl 16 <	2 pF	—
Anode Voltage Va 250	170 V	—
Screen Grid Voltage V\$ a –	170 V	—
Control Grid Voltage Vgl –85 –9	5 V	—
Anode Current la 105	30 mA	—
Screen Grid Current IS2	5 mA	—
Mutual Conductance gm 22	55 mA	—