



ELECTRONIC TUBE REFERENCE

4694

Power - Pentode Single (NOT beam) (under 10W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Audio power pentode for moderate push-pull Class AB output, with a pair delivering approximately 12 W.

GENERAL CHARACTERISTICS

BASE DESIGNATION	P35-31	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	75000 Ω
TRANSCONDUCTANCE	0.007 S
MAXIMUM PLATE VOLTAGE	400 V
MAXIMUM SCREEN VOLTAGE	425 V
MAXIMUM PLATE DISSIPATION	9 W
MAXIMUM SCREEN DISSIPATION	2.7 W
MAXIMUM CATHODE CURRENT	55 mA
<i>Promoted only from clearly identified published characteristics/limits; additional operating, capacitance, regulator, gas-tube, and push-pull data retained as section parameters.</i>	

The Philips 4694 is an indirectly heated output pentode for Class AB audio output service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Philips Miniwatt Vacuum Tube Catalog

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

1938 PHILIPS MINIWATT VACUUM TUBE CATALOG

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	375 V	ClassAB;PushPull;TwoTubes;SelfBias
Screen voltage	250 V	ClassAB;PushPull;TwoTubes;SelfBias
Quiescent plate current per tube	24 mA	ClassAB;PushPull;TwoTubes;SelfBias
Full-modulation plate current per tube	30 mA	ClassAB;PushPull;TwoTubes;SelfBias
Quiescent screen current per tube	3.2 mA	ClassAB;PushPull;TwoTubes;SelfBias
Full-modulation screen current per tube	5.3 mA	ClassAB;PushPull;TwoTubes;SelfBias
Common cathode resistor	142 Ω	ClassAB;PushPull;TwoTubes;SelfBias
Optimum plate-to-plate load	13000 Ω	ClassAB;PushPull;TwoTubes;SelfBias
Power output	12 W	ClassAB;PushPull;TwoTubes;SelfBias
Total distortion	2.3 %	ClassAB;PushPull;TwoTubes;SelfBias
Grid AC voltage at full modulation	6.9 V RMS	ClassAB;PushPull;TwoTubes;SelfBias
Maximum plate dissipation per tube	9 W	ClassAB;PushPull;TwoTubes

1957 Philips Receiving and Amplifying Tubes

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

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	400 V	—
Screen Voltage	425 V	—
Anode Current	22 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	13 W	ClassAB; PushPull



SOURCE DATA APPENDIX

1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-grid capacitance	<0.8 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate current	22 mA	Va=400V; Vg2=425V
Typical screen current	2.8 mA	Va=400V; Vg2=425V

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Common cathode resistor	315 0hm	ClassAB; TwoTubes
Power output	13 W	ClassAB; TwoTubes
Plate-to-plate load resistance	20 k0hm	ClassAB; TwoTubes