

ELECTRONIC TUBE REFERENCE

4654K

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Octal-base version of the Philips 4654 high-transconductance audio output pentode.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.35 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	22000 Ω
TRANSCONDUCTANCE	0.0085 S
AMPLIFICATION FACTOR	11
MAXIMUM PLATE VOLTAGE	600 V
MAXIMUM SCREEN VOLTAGE	425 V
MAXIMUM PLATE DISSIPATION	18 W
MAXIMUM SCREEN DISSIPATION	10 W
MAXIMUM CATHODE CURRENT	120 mA
Philips output pentode; the source sheet prints both 4654 and 4654K, which share the same published electrical characteristics but use different bases.	

Octal-base variant of the 4654 output pentode.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Audio output	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen voltage	275 V	ClassA
Cathode resistor	175 ohm	ClassA
Plate current	72 mA	ClassA
Screen current	8 mA	ClassA
Load resistance	3.5 kOhm	ClassA
Power output	9.2 W	ClassA
Plate supply voltage	425 V	ClassB; PushPull

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid bias	-38 V	ClassB; PushPull
Load resistance plate-to-plate	5 k0hm	ClassB; PushPull
Power output	48 W	ClassB; PushPull
Plate supply voltage	425 V	ClassAB; PushPull
Cathode resistor	265 ohm	ClassAB; PushPull
Load resistance plate-to-plate	6.5 k0hm	ClassAB; PushPull
Power output	27.5 W	ClassAB; PushPull

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8500 uS	ClassA
Plate resistance	22 k0hm	ClassA



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	275 V	ClassA
Screen voltage	275 V	ClassA
Plate current	72 mA	ClassA
Screen current	8 mA	ClassA
Load resistance	3.5 kohm	ClassA
Output power	9.2 W	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8.5 mA/V	ClassA
Plate resistance	22 kohm	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	14.5 pF	—
Plate-grid capacitance	0.8 pF	—

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