

ELECTRONIC TUBE REFERENCE

6M5

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Power pentode with documented Class-A, Class-AB push-pull, and triode-connected audio operating data. Designed for conventional low-frequency power-output stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 700 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	40000 Ω
TRANSCONDUCTANCE	0.01 S
AMPLIFICATION FACTOR	22
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	9 W
MAXIMUM SCREEN DISSIPATION	3.3 W
MAXIMUM CATHODE CURRENT	55 mA
Extracted from supplied datasheet.	

A power pentode with Class A, Class AB push-pull, and triode-connected audio operating data, intended for audio power output stages.

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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	700 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	300 V	—
Plate dissipation	9 W	—
Screen-grid voltage	300 V	—
Screen-grid dissipation	3.3 W	MaxSignal
Cathode current	55 mA	—
Transconductance	10000 μ S	ClassA
Plate resistance	40000 Ohm	ClassA
Power output	3.9 W	ClassA
Grid Yo	550 volts	PublishedLine: Grid Yo.2 voltage(without current) 550 volts
Grid No	300 volts	PublishedLine: Grid No.2 voltage 300 volts
input)	1.4 watts	PublishedLine: input) 1.4 watts
Heater-cathode voltage	100 volts	PublishedLine: Heater-cathode voltage 100 volts
External grid No	1 megohm	PublishedLine: External grid No.1 resistance 1 megohm
Internal heater-cathode resistance	20000 ohms	PublishedLine: Internal heater-cathode resistance 20,000 ohms
Cathode resistor	170 ohms	PublishedLine: Cathode resistor 160 140 170 ohms
Plate current	36 mA	PublishedLine: Plate current 20 30 36 mA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No	5.2 mA	PublishedLine: Grid No.2 current 2.7 4.1 5.2 mA
Mutual conductance	10000 pmhos	PublishedLine: Mutual conductance - - 10,000 pmhos
R.M.S. signal input voltage	3.8 volts	PublishedLine: R.M.S. signal input voltage 2.22 3.0 3.8 volts
current +	4.8 watts	PublishedLine: current = + 0.3 pA 4.8 watts
Grid No.Z2 voltage	250 volts	PublishedLine: Grid No.Z2 voltage 250 volts
Max.-signal plate current	39.5 mA	PublishedLine: Max.-signal plate current 2 x 39.5 mA
Zero-signal grid No	5.2 mA	PublishedLine: Zero-signal grid No.2 current 2 x 5.2 mA
Max.-signal grid No	8 mA	PublishedLine: Max.-signal grid No.2 current 2 x 8.0 mA