



ELECTRONIC TUBE REFERENCE

PB31000

Power - Pentode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Philips RF pentode designed for high-frequency power-amplifier service. Its industrial construction and ratings identify it as a transmitter-class output device rather than a receiving tube.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12 V / 7.5 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
TRANSCONDUCTANCE	0.0065 S
AMPLIFICATION FACTOR	4
MAXIMUM PLATE VOLTAGE	3000 V
MAXIMUM SCREEN VOLTAGE	1000 V
MAXIMUM PLATE DISSIPATION	600 W
MAXIMUM SCREEN DISSIPATION	100 W
MAXIMUM CATHODE CURRENT	700 mA
<i>Promoted where the locked schema directly matches published RF values; frequency/service-specific limits and operating conditions are retained as parameter rows.</i>	

RF pentode for high-frequency power-amplifier service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V4

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	3000 V	RFPowerTube
Maximum screen voltage	1000 V	RFPowerTube
Application	RF pentode for high-frequency power-amplifier service.	SourceDescription
Service category	RF/AF power service as specified in source	RFPowerTube
Heater/filament voltage	12 V	RFPowerTube
Heater/filament current	7.5 A	RFPowerTube

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating method	Direct	RFPowerTube
Device class	Pentode	RFPowerTube

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate capacitance	20 pF	RFPowerTube
Control-grid capacitance	45 pF	RFPowerTube

1999 Philips E-Z

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

1999 PHILIPS E-Z
Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	3000 V	—
Maximum screen voltage	1000 V	—
Maximum plate dissipation	600 W	—
Maximum screen dissipation	100 W	—
Maximum cathode current	700 mA	—
Maximum peak cathode current	2.8 A	—
Operating plate voltage	3000 V	ClassC;Telegraphy
Operating screen voltage	1000 V	ClassC;Telegraphy
Operating plate current	300 mA	ClassC;Telegraphy
RF output power	1250 W	ClassC;Telegraphy
Efficiency	69 %	ClassC;Telegraphy

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6500 uS	—
Screen-grid amplification factor	4	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-cathode capacitance	20 pF	—
Grid-cathode capacitance	45 pF	—
Plate-grid capacitance	0.05 pF	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

