



ELECTRONIC TUBE REFERENCE

4641

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Power triode documented for amplifier or control service, with manufacturer operating data emphasizing useful power output rather than small-signal voltage amplification. Its available documentation does not justify a narrower specialized functional category.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	4 V / 2 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	3200 Ω
TRANSCONDUCTANCE	0.0032 S
AMPLIFICATION FACTOR	10.24
MAXIMUM PLATE VOLTAGE	1500 V
MAXIMUM PLATE DISSIPATION	25 W
MAXIMUM CATHODE CURRENT	60 mA
<i>Directly heated Philips power triode with published Class-A, Class-AB, and Class-B operating conditions at 1000 V plate supply.</i>	

Directly heated output triode for Class-AB 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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	1000 V	ClassA; OneTube
Quiescent plate current	25 mA	ClassA; OneTube
Grid bias	-80 V	ClassA; OneTube
Load resistance	25000 ohm	ClassA; OneTube
Power output	11.5 W	ClassA; OneTube
Distortion	5 %	ClassA; OneTube
Grid AC voltage	58 V RMS	ClassA; OneTube
Maximum anode load	25 W	—
Plate voltage	1000 V	ClassAB; PushPull; TwoTubes; FixedBias
Quiescent plate current per tube	25 mA	ClassAB; PushPull; TwoTubes; FixedBias
Plate current at full modulation per tube	39 mA	ClassAB; PushPull; TwoTubes; FixedBias
Grid bias	-80 V	ClassAB; PushPull; TwoTubes; FixedBias
Load resistance plate-to-plate	35000 ohm	ClassAB; PushPull; TwoTubes; FixedBias
Power output	30 W	ClassAB; PushPull; TwoTubes; FixedBias
Distortion	0.67 %	ClassAB; PushPull; TwoTubes; FixedBias
Grid AC voltage	56 V RMS	ClassAB; PushPull; TwoTubes; FixedBias
Plate voltage	1000 V	ClassAB; PushPull; TwoTubes; CathodeBias
Quiescent plate current per tube	25 mA	ClassAB; PushPull; TwoTubes; CathodeBias

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current at full modulation per tube	28 mA	ClassAB; PushPull; TwoTubes; CathodeBias
Common cathode resistor	1600 ohm	ClassAB; PushPull; TwoTubes; CathodeBias
Load resistance plate-to-plate	35000 ohm	ClassAB; PushPull; TwoTubes; CathodeBias
Power output	29 W	ClassAB; PushPull; TwoTubes; CathodeBias
Distortion	4.5 %	ClassAB; PushPull; TwoTubes; CathodeBias
Grid AC voltage	55 V RMS	ClassAB; PushPull; TwoTubes; CathodeBias
Plate voltage	1000 V	ClassB; PushPull; TwoTubes
Quiescent plate current per tube	5 mA	ClassB; PushPull; TwoTubes
Plate current at full modulation per tube	45 mA	ClassB; PushPull; TwoTubes
Grid bias	-90 V	ClassB; PushPull; TwoTubes
Load resistance plate-to-plate	18000 ohm	ClassB; PushPull; TwoTubes
Power output	41 W	ClassB; PushPull; TwoTubes
Distortion	4 %	ClassB; PushPull; TwoTubes
Grid AC voltage	60 V RMS	ClassB; PushPull; TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3.2 mA/V	ClassA; OneTube
Internal resistance	3200 ohm	ClassA; OneTube



SOURCE DATA APPENDIX

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

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Audio output	—



SOURCE DATA APPENDIX

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.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum no-load plate voltage	3000 V	—
Maximum plate voltage	1500 V	—
Maximum plate dissipation	25 W	—
Maximum cathode current	60 mA	—

TUBE TINKER

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

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