



ELECTRONIC TUBE REFERENCE

4684

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Philips power pentode for self-biased push-pull Class AB audio output, with a pair producing approximately 12 W.

GENERAL CHARACTERISTICS

BASE DESIGNATION	P35-31	BASE PINS	8
NOMINAL HEATER	4 V / 1.75 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
MAXIMUM PLATE DISSIPATION	9 W
<i>Promoted only from clearly identified published characteristics/limits; additional operating, capacitance, regulator, gas-tube, and push-pull data retained as section parameters.</i>	

Indirectly heated power pentode specified for push-pull Class-AB 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