



ELECTRONIC TUBE REFERENCE

B443S

Voltage - Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Philips output pentode closely related to B443, providing approximately 3 W plate dissipation for early audio power-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	035	BASE PINS	—
NOMINAL HEATER	4 V / 150 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	60000 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	80 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM SCREEN DISSIPATION	0.4 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Published operating point, characteristic values and capacitance column reviewed.</i>	

B443S is listed in the supplied valve table as a pentode. Published operating and characteristic values were transcribed from its target row.

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	250 V	Published table operating point
Plate current	12 mA	Published table operating point
Control-grid bias	12 V	Published table operating point
Screen voltage	80 V	Published table operating point
Optimum load resistance	22000 ohm	Published table operating point
Power output	6.8 W	Published table operating point
Maximum plate dissipation	3 W	Published table rating

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1600000 μ S	Published table characteristic
Plate resistance	60000 ohm	Published table characteristic
Heater/filament voltage	4 V	Published heater/filament rating
Heater/filament current	150 mA	Published heater/filament rating

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical anode voltage	250 V	Published datasheet value
Auxiliary-grid voltage	80 V	Published datasheet value
Normal anode current	12 mA	Published datasheet value
Grid bias	-12 V	Published datasheet value
Output power	0.86 W	ClassA; Ra=20kΩ

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum transconductance	—2 mA/V	Published datasheet value
Normal transconductance	1.6 mA/V	Published datasheet value
Screen-grid current	1.9 mA	Published datasheet value
Screen-grid current range	1.4–2.4 mA	Published datasheet value
Maximum grid-circuit resistance	—1.5 MΩ	Published datasheet value
Interelectrode capacitance 1	1.4 pF	Published datasheet value
Interelectrode capacitance 2	9.6 pF	Published datasheet value
Interelectrode capacitance 3	8.9 pF	Published datasheet value

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