



ELECTRONIC TUBE REFERENCE

E451

Power - Tetrode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TETRODE

Directly heated double-grid power valve for output-amplifier service. Its construction and published operating data identify it as a power-output tetrode rather than a small-signal amplifier.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	4 V / 1.1 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Tetrode	
PLATE RESISTANCE	6000 Ω
<i>Published target-row operating and characteristic values reviewed.</i>	

E451 is listed in the supplied valve table as a double-grid power valve. 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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	400 V	Published European table row
Power output	22.4 W	Published European table row
Class-B plate voltage	300 V	ClassB TwoTubes
Class-B plate current	48 mA	ClassB TwoTubes
Class-B load resistance	6000 ohm	ClassB TwoTubes
Class-B power output	16 W	ClassB TwoTubes
Alternate Class-B plate voltage	400 V	ClassB TwoTubes
Alternate Class-B plate current	56 mA	ClassB TwoTubes
Alternate Class-B power output	22.4 W	ClassB TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	6000 ohm	Published European table row
Heater/filament voltage	4 V	Published European table row
Heater/filament current	1.1 A	Published European table row