



ELECTRONIC TUBE REFERENCE

CL2

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Telefunken 200 mA series-heater output pentode providing roughly 1-3 W in AC/DC radio receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	24 V / 200 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	19000 Ω
TRANSCONDUCTANCE	0.0037 S
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM SCREEN VOLTAGE	100 V
MAXIMUM PLATE DISSIPATION	8 W
MAXIMUM CATHODE CURRENT	70 mA
<i>Audio output pentode; maximum ratings and a representative published operating point are promoted.</i>	

The Telefunken CL2 is an indirectly heated 200 mA output pentode for AC/DC receivers, with published output of about 1 W at 100 V and 3 W at 200 V.

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	200 V	ClassA
Plate current	40 mA	ClassA; PlateVoltage=200V
Grid bias	-11 V	ClassA; PlateVoltage=200V
Screen voltage	75 V	ClassA; PlateVoltage=200V
Optimum load resistance	5000 ohm	ClassA; PlateVoltage=200V
Power output	2.5 W	ClassA; PlateVoltage=200V
Grid AC voltage	6.9 V RMS	AtRatedOutput
Maximum anode dissipation	8 W	—
Plate voltage	100 V	ClassA; AlternatePoint
Plate current	50 mA	ClassA; AlternatePoint
Grid bias	-15 V	ClassA; AlternatePoint
Screen voltage	100 V	ClassA; AlternatePoint
Optimum load resistance	2000 ohm	ClassA; AlternatePoint
Power output	1.7 W	ClassA; AlternatePoint

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	3.7 mA/V	ClassA; PlateVoltage=200V
Internal resistance	19000 ohm	ClassA; PlateVoltage=200V
Transconductance	3.8 mA/V	ClassA; AlternatePoint
Internal resistance	16000 ohm	ClassA; AlternatePoint



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1959 Telefunken

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

1959 TELEFUNKEN

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	200 mA	Series-heater AC/DC operation

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	1 W	PlateVoltage=100V
Power Output	3 W	PlateVoltage=200V
Maximum Heater-to-Cathode Peak Voltage	175 V	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Tunsgam

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

195X TUNSGRAM

Section 1 · Pentode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	200 V	—
Typical screen voltage	100 V	—
Typical plate current	40 mA	—
Typical control-grid voltage	-19 V	—
Output power	3 W	Single-ended published operating point

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Load resistance	5000 Ohm	Single-ended published operating point



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

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heizspannung bei	0 mA	Published datasheet specification
Heizspannung Vf 224V	24 V	Published datasheet specification
Heizstrom If –	200 A	Published datasheet specification
Anodenspannung Va	200 V	Published datasheet specification
Schirmgitterspannung Vg2	100 V	Published datasheet specification
Neg. Gittervorspannung Vgl	19 V	Published datasheet specification
Anodenstrom Ia – 40 mA - 40 mA	50 mA	Published datasheet specification
Schirmgitterstrom Ig2 – 5 mA	4.5 mA	Published datasheet specification
Max. Steilheit Smix	8	Published datasheet specification
Norm. Steilheit Snorm	3.1 mA/V	Published datasheet specification
Norm. innerer Widerstand.. Rinorm –	3 Ohm	Published datasheet specification
Published specification	19 Ohm	Published datasheet specification
Maximale Anodenleistung .. Wamix	8	Published datasheet specification
Heizfaden Rfk max –	0 Ohm	Published datasheet specification
Heizfaden	175 V	Published datasheet specification
Published specification	1000 Ohm	Published datasheet specification
V Va	200	Published datasheet specification
V Va	2	Published datasheet specification

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published specification	10	Published datasheet specification
Published specification	20 V	Published datasheet specification
Bei Va	100 V	Published datasheet specification
Bai Va	200 V	Published datasheet specification
stungen bei	10	Published datasheet specification
Vg2	100 v	Published datasheet specification
Published specification	0	Published datasheet specification
Published specification	8	Published datasheet specification
23T 2 EE	2	Published datasheet specification
nung bei Vg2	75 V	Published datasheet specification

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