



ELECTRONIC TUBE REFERENCE

EL12

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Power/output pentode designed for audio-frequency power amplification in single-ended or push-pull output stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	50000 Ω
TRANSCONDUCTANCE	0.015 S
MAXIMUM PLATE VOLTAGE	350 V
MAXIMUM SCREEN VOLTAGE	350 V
MAXIMUM PLATE DISSIPATION	18 W
MAXIMUM SCREEN DISSIPATION	2.8 W
MAXIMUM CATHODE CURRENT	120 mA
<i>Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed where applicable.</i>	

High-power audio output pentode for single-ended class-A and push-pull class-AB service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	1.2 A	Nominal
Maximum Plate Voltage	350 V	—
Maximum Screen Voltage	350 V	—
Maximum Plate Dissipation	18 W	—
Maximum Screen Dissipation	2.8 W	—
Maximum Cathode Current	120 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	12000 μ S	Typical
Plate Resistance	50000 ohm	Typical



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA;SingleEnded

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-grid voltage	250 V	ClassA;SingleEnded
Plate current	72 mA	ClassA;SingleEnded
Screen-grid current	8 mA	ClassA;SingleEnded
Load resistance	3500 0hm	ClassA;SingleEnded
Output power	8 W	ClassA;SingleEnded
Plate voltage	350 V	ClassAB;PushPull;TwoTubes
Screen-grid voltage	350 V	ClassAB;PushPull;TwoTubes
Cathode resistor	250 0hm	ClassAB;PushPull;PerTube
Plate-to-plate load resistance	5000 0hm	ClassAB;PushPull;TwoTubes
Plate cold voltage	650 V	—
Screen-grid cold voltage	650 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance maximum	0.7 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacities Cagl	< 0.7 pF	—
Ig2	8 mA	ClassA
Vo (dyop = 10%)	8 W	—
Vi (dtot = 10%)	4.5 V	—
Vi (Wo [1])	50 mW	—
Vi (Wo [2])	0.3 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Va	250 V	ClassA
Vg2	250 V	ClassA
Ve1	<71 V	ClassA
Ta	72 mA	ClassA
Va	250 v	ClassA
Vg2	250 v	ClassA
Ia = 2x45	2x53 mA	ClassA
Ig2 = 2x5,1	2x8.5 mA	ClassA
Wo = 0	14.5 w	ClassA
Va, =max [1]	550 V	—
Va, =max [2]	0 V	—
Va, =max [3]	2.5 W	—
Va =max [1]	250 V	—
Va =max [2]	5 W	—
Wa =max [1]	18 W	—
Wa =max [2]	0.3 uA	—
Wa =max [3]	-1.3 V	—
Vg2o =max	550 V	—
Vg2 =max	275 V	—
Ik =max [1]	90 mA	—
Ik =max [2]	950 V	—

TUBE TINKER

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and their source documents.

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