



ELECTRONIC TUBE REFERENCE

EL33

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

High-sensitivity output pentode for audio power amplification in AC mains-operated equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 900 mA	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	0.009 S
AMPLIFICATION FACTOR	23
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	9 W
MAXIMUM SCREEN DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	55 mA
<i>Published source values promoted where applicable; additional values retained as parameters.</i>	

High-sensitivity output pentode for audio power amplification in AC mains-operated equipment.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1951 Mullard Valve and Service Manual

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

1951 MULLARD VALVE AND SERVICE MANUAL

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Audio power output	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1967 Mullard Receiving Tubes for Maintenance

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

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen-grid voltage	250 V	ClassA
Plate current	36 mA	ClassA
Screen-grid current	4 mA	ClassA
Control-grid voltage	-6 V	ClassA
Transconductance	9 mA/V	ClassA
Plate resistance	50 k0hm	ClassA
Load resistance	7 k0hm	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power output	4 W	ClassA
Power output	8.2 W	PushPull TwoTubes
Plate voltage	250 V	TriodeConnection
Power output	1.1 W	TriodeConnection
Maximum plate voltage	250 V	—
Maximum plate dissipation	9 W	—
Maximum screen-grid voltage	275 V	—
Maximum screen-grid dissipation	2.5 W	—
Maximum cathode current	55 mA	—



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
Chguffage: indirect par C.A. ou C.C.; ve	6.3 V	—
Wo (dtot= 10%)	4.5 W	—
Vi (Wo	50 mW	—
Wg2 (Wo=max.) = max	2.5 W	—
Ix = maxX	55 mA	—
Vg1{Igl=+0,3ul}= max	1.3 V	—
Vet = max	100 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Va	250 V	ClassA
Vg2	250 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
V_{rs}	-6 V	ClassA
Betriebsdaten Klasse A	36 mA	ClassA
V_a	250 v	ClassA
V_{a2}	250 v	ClassA
$I_g = 2 \times 24$	2x28.5 mA	ClassA
$I_{g2} = 2 \times 2,8$	2x4.6 mA	ClassA
$V_o = [\phi]$	8.2 w	ClassA
$V_{a,} = \max$	550 V	—
$V_a = \max$	300 V	—
$W_a = \max_e$	9 w	—
$V_{g2,} = \max$	550 V	—
$V_{g2} = \max$	300 V	—
$W_{g2} (V_1=0) = \max$	1.2 W	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker