

ELECTRONIC TUBE REFERENCE

CL6

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Series-heater audio power pentode supporting single-ended operation and push-pull output up to approximately 13.5 W.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	35 V / 200 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	19000 Ω
TRANSCONDUCTANCE	0.008 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	9 W
MAXIMUM SCREEN DISSIPATION	1 W
Output pentode section; promoted resistance corresponds to 200 V operating point.	

Power output pentode for AC/DC operation. The datasheet includes single-ended service and two-valve push-pull conditions up to 13.5 W output.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage	160 V	SingleEnded 160V
Screen voltage	100 V	SingleEnded 160V
Anode current	50 mA	SingleEnded 160V
Control-grid voltage	-8.3 V	SingleEnded 160V
Load resistance	2000 ohm	SingleEnded 160V
Output power	2.1 W	SingleEnded 160V
Cathode resistor	140 ohm	SingleEnded 160V
Anode voltage	200 V	SingleEnded 200V
Screen voltage	100 V	SingleEnded 200V
Anode current	45 mA	SingleEnded 200V
Control-grid voltage	-9.5 V	SingleEnded 200V
Load resistance	4500 ohm	SingleEnded 200V
Output power	4 W	SingleEnded 200V
Cathode resistor	190 ohm	SingleEnded 200V
Anode voltage	100 V	PushPull 100V
Screen voltage	100 V	PushPull 100V
Two-tube quiescent anode current	84 mA	PushPull 100V
Anode-to-anode load resistance	3000 ohm	PushPull 100V
Output power	4 W	PushPull 100V
Total distortion	5.6 %	PushPull 100V
Anode voltage	250 V	PushPull 250V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	125 V	PushPull 250V
Two-tube quiescent anode current	72 mA	PushPull 250V
Anode-to-anode load resistance	7000 ohm	PushPull 250V
Output power	13.5 W	PushPull 250V
Total distortion	6.3 %	PushPull 250V
Anode supply voltage maximum	550 V	—
Plate voltage maximum	250 V	—
Plate dissipation maximum	9 W	—
Screen supply voltage maximum	550 V	—
Screen voltage maximum	125 V	—
Heater-cathode voltage maximum	175 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8500 uS	SingleEnded 160V
Plate resistance	12000 ohm	SingleEnded 160V
Transconductance	8000 uS	SingleEnded 200V
Plate resistance	19000 ohm	SingleEnded 200V



SOURCE DATA APPENDIX

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
diese Schirmgitterspannung konstruiert. Bei Vo	2	Published datasheet specification

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ein Anodenstrom von	0 mA	Published datasheet specification
Published specification	8.5 mA/V	Published datasheet specification
Published specification	6 V	Published datasheet specification
Für G/W-Geräte, die mit niedrigen Netzspannungen arbeiten, bietet	7737	Published datasheet specification
ffü'!':'%"' L L SEEN liche Vorspannung –	3 V	Published datasheet specification
T T : [bei Vo	2	Published datasheet specification
e EIEEEE [t 2 2001:¥g2	100 V	Published datasheet specification
' HH A	0	Published datasheet specification
M j - 2	125 V	Published datasheet specification
der negativen Gittervorspannung bei Vg,	100 V	Published datasheet specification
und Va	100	Published datasheet specification
darf	6 V	Published datasheet specification
Anodenstrom als Funktion der An;)dcuspnnung bei bg,	100 V	Published datasheet specification
Bei	0 V	Published datasheet specification
Hieraus ergibt sich für den	0	Published datasheet specification
schaltet, um eine größere Endleistung zu erhalten. Die CL 6 gibt bei ¥V, – Vg2	100 V	Published datasheet specification
wechselspannungsbedarf von	7 V	Published datasheet specification
von	0 V	Published datasheet specification
Endpenthode mit automatischer Vorspannung, Va	100 V	Published datasheet specification
s 1 fa	45 mA	Published datasheet specification
Endpenthode mit automatischer Vorspannung, Va	200 V	Published datasheet specification
Ve,	60 V	Published datasheet specification
Heizspannung.« . o o o v v h e e e e e e Vi	3 V	Published datasheet specification
Heizstrom 000 e e e e e e Iy	200 mA	Published datasheet specification
Grenzwert der Gitteranodenkapazität. Cogt	0.5	Published datasheet specification

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anodenspannung Vo	100 V	Published datasheet specification
Schirmgitterspannung Vye	100 V	Published datasheet specification
Schirmgittervorwiderstand Ry	27	Published datasheet specification
Schirmgitterentkopplungskondensator Cgp	32 uF	Published datasheet specification
Kathodenwiderstand R,	140	Published datasheet specification
Neg. Gittervorspannung Vegg	83	Published datasheet specification
Anodenstrom I,	50 mA	Published datasheet specification
Sehirmgitterstrom Iz	9 mA	Published datasheet specification
Steilheit S	85 mA/V	Published datasheet specification
Innenwiderstand R;	12000	Published datasheet specification
Giinstigster Anpassungswiderstand . R,	2000	Published datasheet specification
Ausgangsleistung w,	21 W	Published datasheet specification
Verzerrung diot	109	Published datasheet specification
Gitterwechselspannungsbedarf . . . V;	5.6 V	Published datasheet specification
Empfindlichkeit Vicmmw)	0.62 V	Published datasheet specification
Bezug auf Gitter 1 ug2i	1	Published datasheet specification
Anodenspannung . V,	100 V	Published datasheet specification
Vg2	100 V	Published datasheet specification
Ry,	190	Published datasheet specification
Anodenruhestrom . I,	2	Published datasheet specification
Tomax	2	Published datasheet specification
Tp2max	2	Published datasheet specification
dtot	5.69	Published datasheet specification
Max. Anodenkaltspannung Vi	550 V	Published datasheet specification
Max. Anodenspannung . . . Ve	250 V	Published datasheet specification

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max. Anodendauerbelastung W_a	9 W	Published datasheet specification
Max. Schirmgitterkaltspannung V_{G0}	550 V	Published datasheet specification
Max. Schirmgitterspannung V_{G2}	125 V	Published datasheet specification
Max. Schirmgitterdauerbelastung im Ruhezustand. W_{G2}	1 W	Published datasheet specification
W_{ez} (W_{max})	1.5 W	Published datasheet specification
bei I_a ,	50 mA	Published datasheet specification
Published specification	100 V	Published datasheet specification
bei I_a ,	45 mA	Published datasheet specification
Max. Kathodenstrom I_e	70 mA	Published datasheet specification
Grenzwert des Gitterstromes I_{G1} (Ig1)	0	Published datasheet specification
Max. Widerstand zwischen Gitter und Kathode R_{G1}	1	Published datasheet specification
Max. Widerstand zwischen Heizfaden und Kathode R_{pr}	5000	Published datasheet specification
Max. Scheitelwert der Sp. zwischen Heizfaden und Kathode $U_{ka max}$	75 V	Published datasheet specification