



ELECTRONIC TUBE REFERENCE

PL81F

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Power pentode designed for television horizontal line time-base service and also suitable for sound-output amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	21.5 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	11000 Ω
TRANSCONDUCTANCE	0.006 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	8 W
MAXIMUM SCREEN DISSIPATION	4.5 W
MAXIMUM CATHODE CURRENT	180 mA
Pentode section; promoted values are taken from the approved source where explicitly published.	

Power pentode for sound output and television horizontal line time-base service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 La Radiotechnique

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

1953 LA RADIOTECHNIQUE

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Indirect (cathode isolee du filament)	3 A	Pentode
Alimentation du filament en serie. t Vf	21.5 V	Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	Pentode
Screen-grid voltage	200 V	Pentode
Control-grid voltage	28 V	Pentode
Plate current	40 mA	Pentode
Plate resistance	11 kohm	Pentode
Transconductance	6 mA/V	Pentode
Haute tension	200 V	Pentode
Suppressor-grid voltage	0 V	Pentode
Resistance commune aux grilles2, Rg 1 000 1000 Q	1000 ohm	Pentode
Control-grid voltage	315 V	Pentode
Load impedance	500 ohm	Pentode
Plate current	87 mA	Pentode
Screen-grid current	125 mA	Pentode
Output power	20 W	Pentode
Control-grid capacitance	14.7 pF	Pentode
Plate capacitance	6.4 pF	Pentode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite anode-grille 1	8 pF	Pentode
Plate voltage	250 V	Pentode
Screen-grid voltage	250 V	Pentode
Plate dissipation . Pa	8 W	Pentode
Screen-grid dissipation. Pg	45 W	Pentode
+ grille 2)	10 W	Pentode
Cathode current	180 mA	Pentode
Grid-circuit resistance 1 Rgy	5 Mohm	Pentode
Heater-cathode voltage. Vki	200 V	Pentode
250 mA pour : Va	170 V	Pentode
310 mA pour : Va	200 V	Pentode
(2) Pendant le temps d'echauffement de la cathode, Pgep	6 W	Pentode
Vq1-0v	0 v	Pentode

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