



ELECTRONIC TUBE REFERENCE

5A102A

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Output pentode with published operating conditions spanning roughly 50 mW to 1 W for moderate power-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	6
NOMINAL HEATER	7.5 V / 850 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	43000 Ω
TRANSCONDUCTANCE	0.0025 S
AMPLIFICATION FACTOR	110
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	150 V
<i>Ratings and characteristics extracted from 5A102A.pdf.</i>	

Output Pentode. Output—mW. 50 100 250 500 750 1,000.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Standard Valves

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

1937 STANDARD VALVES

Section 1 · Pentode

DESCRIPTIVE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Former designation	VLS452	Alias

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-anode capacitance	0.5 pF	—
Input capacitance	6.8 pF	—
Output capacitance	9 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum direct anode current	50 mA	—
Maximum direct screen current	10 mA	—
Typical load resistance	4000 ohm	V _p =180V;V _{g2} =150V



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1946 Standard Telephone and Cables

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

1946 STANDARD TELEPHONE AND CABLES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
VALVE TYPE	5 A	—
Maximum direct anode voltage	180 volts	—
Maximum direct anode curren	50 mA	—
Maximum direct screen voltage	150 volts	—
Maximum direct screen curren	10 mA	—
Maximum control grid resistance	500000 ohms	—
Anode voltage	180 volts	—
Screen voltage	150 volts	—
Suppressor voltage	0 volts	—
Load resistance	4000 ohms	—
100 VB	0 VOLTS	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal heater voltage	7.5 volts	—
Heater curren	0.85 amps	—
Impedance	43000 ohms	—

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