



ELECTRONIC TUBE REFERENCE

300B

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Classic directly heated low-mu audio power triode developed for high-quality Class A amplification. Low plate resistance and roughly 40 W plate dissipation support transformer-coupled single-ended operation, with published output typically in the several-watt range.

GENERAL CHARACTERISTICS

BASE DESIGNATION	UX4	BASE PINS	4
NOMINAL HEATER	5 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	700 Ω
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	3.85
MAXIMUM PLATE VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	40 W
MAXIMUM CATHODE CURRENT	100 mA
<i>Promoted fields audited from printed ratings/characteristics; remaining published values preserved as parameters.</i>	

Solid-plate directly heated 300B audio power triode. The supplied Emission Labs sheet was read for filament data, maximum ratings, representative operating points, gm/rp/mu, output conditions, capacitances, and rectifier filter conditions as applicable.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 Western Electric Tubes

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

1956 WESTERN ELECTRIC TUBES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	5 V	—
HeaterOrFilamentCurrent	1.2 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	300 V	ClassA;Audio
Typical Plate Current	60 mA	ClassA;Audio



SOURCE OPERATING CONDITIONS

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199X JJ

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

199X JJ

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	300 V	—
TypicalGridVoltage	-61 V	—
Typical Plate Current	60 mA	—

Characteristic		
Parameter	Published Value	Condition / Note
Grid Cathode Capacitance	17 pF	—
PlateCathodeCapacitance	11 pF	—
GridPlateCapacitance	7.5 pF	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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2026 Electro Harmonix Gold

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

2026 ELECTRO HARMONIX GOLD

Section 1 · Triode

Characteristic		
Parameter	Published Value	Condition / Note
Plate Current	50–85 mA	Plate 303 V; Grid -58 V

Other		
Parameter	Published Value	Condition / Note
Power Output	5.5 W	Plate 303 V; Load 2.4 kohm; ClassA;OneTube
Negative Grid Voltage Maximum	220 V	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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2026 Emission Labs

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2026 EMISSION LABS

Section 1 · Triode

Characteristics		
Parameter	Published Value	Condition / Note
Filament voltage	5 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament current	1.3 A	—
Plate resistance	700 ohm	ClassA
Amplification factor	3.9	ClassA
Transconductance	5600 uS	ClassA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	300 V	ClassA
Plate current	56 mA	ClassA
Grid voltage	-58.5 V	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	15 pF	—
Grid-filament capacitance	8.5 pF	—
Plate-filament capacitance	4 pF	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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2026 JJ Electronic

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

2026 JJ ELECTRONIC

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	60 mA	Plate 300 V;Grid -61 V

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridCapacitance	17 pF	—
Plate Capacitance	11 pF	—
Grid To Plate Capacitance	7.5 pF	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Western Electric 300s

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

2026 WESTERN ELECTRIC 300S

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	5 volt	Filament voltage 5.0 volts, a.c. or d.c.
Nominal filament current	1.2 amperes	Nominal filament current 1.2 amperes
Plate current	60 milliamperes	Plate current 60 milliamperes
Amplification factor	3.85	Amplification factor 3.85
Plate resistance	700 ohms	Plate resistance 700 ohms
Grid to plate transconductance	5500 micromhos	Grid to plate transconductance 5500 micromhos
operating plate current are shown in Figures	7 volt	operating plate current are shown in Figures 7, 8 and 9, for a plate voltage of 350 volts.
Pm, and harmonic levels, F	2	Pm, and harmonic levels, F2m and Fsm, for each point in both the curves and the table, is numer

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	450 volt	Maximum plate voltage 450 volts
Maximum plate dissipation	40 watts	Maximum plate dissipation 40 watts
Maximum plate current of average tube for fixed grid bias	70 milliamperes	Maximum plate current of average tube for fixed grid bias 70 milliamperes
limited to a maximum value of	70 milliamperes	limited to a maximum value of 70 milliamperes, so that tubes having plate currents higher than