



ELECTRONIC TUBE REFERENCE

47

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Classic directly heated audio power pentode for single-ended and push-pull receiver output stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5B	BASE PINS	5
NOMINAL HEATER	2.5 V / 1.75 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	60000 Ω
TRANSCONDUCTANCE	0.0025 S
AMPLIFICATION FACTOR	150
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM CATHODE CURRENT	37 mA
<i>Maximum ratings and Class A characteristics mapped from the printed tables.</i>	

Directly heated power pentode for audio-output service, including single-ended and push-pull operation.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1932 Cunningham Radio Tubes

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

1932 CUNNINGHAM RADIO TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	1.25 pF	Published direct interelectrode capacitance
Undistorted power output	2500 mW	Published operating characteristic
Load resistance	7000 ohm	Published operating characteristic

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA
Screen Voltage	250 V	ClassA
Grid Voltage	-16.5 V	ClassA
Plate Current	31 mA	ClassA
Screen Current	6 mA	ClassA
Load Resistance	7000 ohm	ClassA
Power Output	2.7 W	ClassA



SOURCE OPERATING CONDITIONS

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193X Cunningham

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193X CUNNINGHAM

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	2.5 V	Published nominal
Heater/filament current	1.75 A	Published nominal
Transconductance	2500 μ S	Published characteristic



SOURCE OPERATING CONDITIONS

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1940 RCA

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1940 RCA

Section 1 · Pentode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	2.5 V	Nominal
HeaterCurrentNominal	1.75 A	Nominal
Maximum Plate Voltage	250 V	—
Maximum Screen Voltage	250 V	—
Maximum Cathode Current	37 mA	—

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2500 μ S	Typical
Amplification Factor	150	Typical

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	60000 ohm	Typical


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1948 Brimar Radio Valve Manual

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1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	—
Plate Current	31 mA	—
Screen Voltage	250 V	—
Screen Current	6 mA	—
Control Grid Voltage	-16.5 V	—
Optimum Load	7000 ohm	—
Power Output	2.7 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	60000 ohm	—
Transconductance	2500 μ S	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1950 Sylvania

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

1950 SYLVANIA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2500 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Operating Mode	Single-ended or push-pull audio output	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA
Screen Voltage	250 V	ClassA
Grid Voltage	-16.5 V	ClassA
Plate Current	31 mA	ClassA
Screen Current	6 mA	ClassA
Load Resistance	7000 ohm	ClassA
Power Output	2.7 W	ClassA



SOURCE DATA APPENDIX

1961 Tung Sol

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1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	2.7 W	ClassA



SOURCE DATA APPENDIX

1968 General Electric Co

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1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA
Screen Voltage	250 V	ClassA
Plate Current	31 mA	ClassA
Screen Current	6 mA	ClassA
Load Resistance	7000 ohm	ClassA
Total Harmonic Distortion	6 %	ClassA
Power Output	2.7 W	ClassA

TUBE TINKER

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