



ELECTRONIC TUBE REFERENCE

33

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Power/output pentode designed for Class-A, single-ended, or push-pull audio-frequency output amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5K	BASE PINS	5
NOMINAL HEATER	2 V / 260 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	55000 Ω
TRANSCONDUCTANCE	0.0017 S
AMPLIFICATION FACTOR	90
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	180 V
Published promoted fields populated by semantic section ownership.	

Directly heated output power pentode.

SOURCE OPERATING CONDITIONS

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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	0.9 pF	Published direct interelectrode capacitance
Undistorted power output	700 mW	Published operating characteristic
Load resistance	7000 ohm	Published operating characteristic

SOURCE OPERATING CONDITIONS

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1937 Raytheon Radio Receiving Tubes

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1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	180 V	Published datasheet rating
Maximum screen voltage	180 V	Published datasheet rating
Plate voltage	180 V	ClassA
Screen voltage	180 V	ClassA
Control-grid bias	18 V	ClassA
Plate current	22 mA	ClassA
Screen current	5 mA	ClassA
Load resistance	6000 ohm	ClassA
Power output	1.4 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	55000 ohm	Published datasheet characteristic
Transconductance	1700 μ S	Published datasheet characteristic
Amplification factor	90	Published datasheet characteristic
Heater/filament voltage	2 V	Published heater/filament rating
Heater/filament current	260 mA	Published heater/filament rating


SOURCE DATA APPENDIX

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 V	Published nominal
Heater/filament current	260 mA	Published nominal
Transconductance	1800 μ S	Published characteristic


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1940 RCA

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1940 RCA

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	2 V	Published nominal value
Heater or filament current	260 mA	Published nominal value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1700 μ S	Published representative/high operating value
Amplification factor	90	Published representative/high operating value
Plate resistance	55000 ohm	Published representative/high operating value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Audio power output	1.4 W	SingleTube; 180 V plate
Load resistance	6000 ohm	SingleTube; 180 V plate


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1950 Sylvania

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1950 SYLVANIA

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	2 V	—
HeaterOrFilamentCurrent	260 mA	—


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195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	8 pF	Section1
Output capacitance	2 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	180 V	ClassA
Screen voltage	180 V	ClassA
Control-grid voltage	-18 V	ClassA
Plate current	22 mA	ClassA
Screen current	5 mA	ClassA
Load resistance	6000 Ω	ClassA
Power output	1.4 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	55000 Ω	ClassA
Transconductance	1700 μS	ClassA



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	1.4 W	ClassA1