

ELECTRONIC TUBE REFERENCE

1W4

Voltage - Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Directly heated power-amplifier pentode designed for battery-operated receiver output service with published Class-A operating conditions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5BZ	BASE PINS	7
NOMINAL HEATER	1.4 V / 50 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	250000 Ω
TRANSCONDUCTANCE	0.000925 S
MAXIMUM PLATE VOLTAGE	110 V
MAXIMUM SCREEN VOLTAGE	110 V
MAXIMUM CATHODE CURRENT	6 mA
Directly heated power-amplifier pentode for battery-operated output service.	

The 1W4 is a Pentode vacuum tube as described by the source datasheet.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3.6 pF	—
Output capacitance	7 pF	—
Grid-to-plate capacitance	0.1 pF	—
Plate resistance	250000 ohm	ClassA; OperatingPoint1
Transconductance	925 uS	ClassA; OperatingPoint1
Plate resistance	300000 ohm	ClassA; OperatingPoint2
Transconductance	875 uS	ClassA; OperatingPoint2
Plate resistance	400000 ohm	ClassA; OperatingPoint3
Transconductance	650 uS	ClassA; OperatingPoint3

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	ClassA; OperatingPoint1
Screen voltage	90 V	ClassA; OperatingPoint1
Control-grid bias	9 V	ClassA; OperatingPoint1
Plate current	5 mA	ClassA; OperatingPoint1
Screen current	1 mA	ClassA; OperatingPoint1
Load resistance	12000 ohm	ClassA; OperatingPoint1
Power output	0.2 W	ClassA; OperatingPoint1
Plate voltage	67.5 V	ClassA; OperatingPoint2
Screen voltage	67.5 V	ClassA; OperatingPoint2
Control-grid bias	6 V	ClassA; OperatingPoint2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	3.8 mA	ClassA; OperatingPoint2
Screen current	0.8 mA	ClassA; OperatingPoint2
Load resistance	16000 ohm	ClassA; OperatingPoint2
Power output	0.1 W	ClassA; OperatingPoint2
Plate voltage	45 V	ClassA; OperatingPoint3
Screen voltage	45 V	ClassA; OperatingPoint3
Control-grid bias	4.5 V	ClassA; OperatingPoint3
Plate current	1.6 mA	ClassA; OperatingPoint3
Screen current	0.3 mA	ClassA; OperatingPoint3
Load resistance	20000 ohm	ClassA; OperatingPoint3
Power output	0.035 W	ClassA; OperatingPoint3
Maximum plate voltage	110 V	—
Maximum screen voltage	110 V	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
Heater voltage	1.4 V	Nominal
Heater current	50 mA	Nominal

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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