

ELECTRONIC TUBE REFERENCE

1V6

Voltage - Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Directly heated subminiature triode-pentode for low-power battery-operated amplifier circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BC	BASE PINS	7
NOMINAL HEATER	1.25 V / 40 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

7BC - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – F	–	F – Filament	CONNECTED
PIN2 – 2P	B	P – Plate (Anode)	CONNECTED
PIN3 – 2G1	B	G1 – Control Grid	CONNECTED
PIN4 – FCT	–	FCT – Filament Center Tap	CONNECTED
PIN5 – 1G1	A	G1 – Control Grid	CONNECTED
PIN6 – 1P	A	P – Plate (Anode)	CONNECTED
PIN7 – F	–	F – Filament	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	12000 Ω
TRANSCONDUCTANCE	0.0002 S
AMPLIFICATION FACTOR	2.4
MAXIMUM PLATE VOLTAGE	45 V
<i>Oscillator triode section.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.0002 S
MAXIMUM PLATE VOLTAGE	90 V
MAXIMUM SCREEN VOLTAGE	90 V
<i>Directly heated triode-pentode converter combining oscillator and mixer functions.</i>	

Directly heated subminiature triode-pentode for low-power battery-operated amplifier circuits.

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Oscillator-grid current	12 μ A	Converter
Oscillator-grid resistor	1000000 ohm	Converter
Oscillator plate voltage	45 V	Converter
Oscillator plate current	1.4 mA	Converter

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	45 V	ClassA; OperatingPoint1
Screen voltage	45 V	ClassA; OperatingPoint1
Plate current	0.4 mA	ClassA; OperatingPoint1
Screen current	0.15 mA	ClassA; OperatingPoint1
Maximum plate voltage	90 V	—
Maximum screen voltage	90 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1000000 ohm	ClassA; OperatingPoint1
Conversion transconductance	200 μ S	ClassA; OperatingPoint1

195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	45 V	—
Plate current	0.4 mA	—

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	45 V	—
Grid 1 return resistance	5 megohm	—
Grid 2 voltage	45 V	—
Plate current	0.4 mA	—
Grid 2 current	0.15 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1000000 ohm	—
Transconductance	200 uS	—



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ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	1.25 V	Nominal
Heater current	40 mA	Nominal

1961 TUNG SOL

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	1.25 V	Nominal
Heater current	40 mA	Nominal



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	67.5 V	AudioAmplifier
Plate current	0.5 mA	AudioAmplifier
Application	Triode amplifier section	Section1

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	67.5 V	AudioOutput
Screen voltage	67.5 V	AudioOutput
Application	Low-power pentode section	Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	200 μ S	Section2

TUBE TINKER

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

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