

ELECTRONIC TUBE REFERENCE

6BF5

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power pentode designed for television vertical-deflection amplifier service, including triode-connected operation in sweep-output circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7BZ	BASE PINS	7
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7BZ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	A	G1 – Control Grid	CONNECTED • verified
PIN2 – Pin 2	A	G3 – Suppressor Grid	CONNECTED • verified
PIN2 – Pin 2	A	K – Cathode	CONNECTED • verified
PIN3 – Pin 3	–	H – Heater	CONNECTED • verified
PIN4 – Pin 4	–	H – Heater	CONNECTED • verified
PIN5 – Pin 5	A	P – Plate (Anode)	CONNECTED • verified
PIN6 – Pin 6	A	G2 – Screen Grid	CONNECTED • verified
PIN7 – Pin 7	A	G1 – Control Grid	CONNECTED • verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	10000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	5.5 W
MAXIMUM SCREEN DISSIPATION	1.25 W
MAXIMUM CATHODE CURRENT	40 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>Maximum plate dissipation is 5.5 W for Class A amplifier service; 5.0 W is separately published for vertical-deflection service.</i>	

Beam-power pentode designed for television vertical-deflection amplifier service.

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	110 V	ClassA; OperatingPoint1
Screen voltage	110 V	ClassA; OperatingPoint1
Control-grid bias	7.5 V	ClassA; OperatingPoint1
Plate current	36 mA	ClassA; OperatingPoint1
Screen current	4 mA	ClassA; OperatingPoint1
Plate resistance	12000 ohm	ClassA; OperatingPoint1
Transconductance	7500 uS	ClassA; OperatingPoint1
Load resistance	2500 ohm	ClassA; OperatingPoint1
Plate voltage	225 V	VerticalDeflection; OperatingPoint2
Screen voltage	30 V	VerticalDeflection; OperatingPoint2
Control-grid bias	10 V	VerticalDeflection; OperatingPoint2
Load resistance	2500 ohm	VerticalDeflection; OperatingPoint2
Power output	6.7 W	VerticalDeflection; OperatingPoint2

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	5.5 W	ClassA1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	12000 ohm	Typical



SOURCE OPERATING CONDITIONS

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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 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID #	0.65 µf	Capacitances GRID #1 TO PLATE: (G1 TO P) 0.65 µf

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE	6.3 V	Maximum Ratings HEATER VOLTAGE 6.3 VOLTS
MAXIMUM PLATE DISSIPATION	5.5 W	Maximum Ratings MAXIMUM PLATE DISSIPATION 5.5 WATTS
HEATER VOLTAGE	6.3 V	Typical Operating Conditions HEATER VOLTAGE 6.3 VOLTS
HEATER CURRENT L	2 A	Typical Operating Conditions HEATER CURRENT L 2 AMP.
PEAK AF GRID #	5 V	Typical Operating Conditions PEAK AF GRID #1 VOLTAGE ~.5 VOLTS
ZERO—SIGNAL PLATE CURRENT	36 mA	Typical Operating Conditions ZERO—SIGNAL PLATE CURRENT 36 MA.
MAXIMUM SIGNAL PLATE CURRENT	39 mA	Typical Operating Conditions MAXIMUM SIGNAL PLATE CURRENT 39 MA.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ZERO—SIGNAL GRID #	4 mA	Typical Operating Conditions ZERO—SIGNAL GRID #2 CURRENT 4 MA.
M AX FMUM SIGNAL GRID #	10.5 mA	Typical Operating Conditions M AX FMUM SIGNAL GRID #2 CURRENT 10.5 MA.
MAXIMUM SIGNAL POWER OUTPUT L	9 W	Typical Operating Conditions MAXIMUM SIGNAL POWER OUTPUT L.9 WATTS



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	700 V	—
PlateDissipationVerticalDeflection	5 W	—
Heater Cathode Voltage	100 V	—
Grid1CircuitResistanceFixedBias	0.1 Mohm	—
Grid1CircuitResistanceCathodeBias	0.5 Mohm	—
Grid1CircuitResistanceCathodeBias8200hmMinimum	2.2 Mohm	—
Plate Voltage	110 V	ClassA
Screen Voltage	110 V	ClassA
Grid1 Voltage	-7.5 V	ClassA
Peak AF Grid1 Voltage	7.5 V	ClassA
Zero Signal Plate Current	49 mA	ClassA
Maximum Signal Plate Current	50 mA	ClassA
Zero Signal Screen Current	4 mA	ClassA
Maximum Signal Screen Current	8.5 mA	ClassA
Load Resistance	2500 ohm	ClassA
Total Harmonic Distortion	9 %	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	0.9 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	225 V	TriodeConnection; VerticalDeflection
Cathode Bias Resistance	1200 ohm	TriodeConnection; VerticalDeflection
GridInputSawtoothPeakToPeak	40 V	TriodeConnection; VerticalDeflection
GridInputNegativePeaking	56 V	TriodeConnection; VerticalDeflection
Amplification Factor	6.7	TriodeConnection; VerticalDeflection
Transconductance	4200 uS	TriodeConnection; VerticalDeflection
Plate Current	20 mA	TriodeConnection; VerticalDeflection
PeakPositivePulsePlateOutputVoltage	500 V	TriodeConnection; VerticalDeflection
SawtoothPlateOutputPeakToPeak	140 V	TriodeConnection; VerticalDeflection
Deflection Angle	53 deg	TriodeConnection; VerticalDeflection