

ELECTRONIC TUBE REFERENCE

6BG6GA

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Improved replacement for the 6BG6G beam-power horizontal-output tube, retaining approximately 20 W plate dissipation and high pulse-current capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5BT	BASE PINS	8
NOMINAL HEATER	6.3 V / 900 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

5BT - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – IS	A	IS – Internal Screen	CONNECTED
PIN2 – H	–	H – Heater	CONNECTED
PIN3 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN3 – K	A	K – Cathode	CONNECTED
PIN5 – G1	A	G1 – Control Grid	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED
PIN8 – G2	A	G2 – Screen Grid	CONNECTED
CAP1 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	25000 Ω
TRANSCONDUCTANCE	0.006 S
MAXIMUM PLATE VOLTAGE	700 V
MAXIMUM SCREEN VOLTAGE	350 V
MAXIMUM PLATE DISSIPATION	20 W
MAXIMUM SCREEN DISSIPATION	3.2 W
MAXIMUM CATHODE CURRENT	110 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>DC plate-supply and pulse plate-voltage ratings are preserved as parameters; there is no separately stated generic maximum DC plate voltage.</i>	

Beam-power pentode replacement for 6BG6G, primarily for television horizontal-deflection service.



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
Peak Positive Pulse Plate Voltage	6600 V	HorizontalDeflection

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TriodeAmplificationFactor	8	TriodeConnection



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 1 of 4

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1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Beam Power

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID #	0.8 pF	Capacitances GRID #1 TO PLATE 0.8 pf

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM GRID #	3.2 W	Maximum Ratings MAXIMUM GRID #2 DISSIPATION 3.2 WATTS
MAXIMUM DC CATHODE CURRENT	110 mA	Maximum Ratings MAXIMUM DC CATHODE CURRENT 110 MA.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM GRID #	0.47 Mohm	Maximum Ratings MAXIMUM GRID #1 CIRCDIT RESISTANCE 0.47 MEGOHM
PLATE VOLTAGE	250 V	Typical Operating Conditions PLATE VOLTAGE 0'0 250 voLTs
GRID #	250 V	Typical Operating Conditions GRID #2 VOLTAGE 250 250 VOLTS
PLATE CURRENT	75 mA	Typical Operating Conditions PLATE CURRENT 180 75 Ma.
GRID #i VOLTAGE 0 –	15 V	Typical Operating Conditions GRID #i VOLTAGE 0 — 15 VOLTS
TRANSCONDUCTANCE	0 μMHOS	Typical Operating Conditions TRANSCONDUCTANCE 6 000 μMHOS
GRID #	1 mA	Typical Operating Conditions GRID #1 VOLTAGE (APPROX.) FOR Ib=1.0 MA. —45 voLTs
GRID #	45 V	Typical Operating Conditions GRID #1 VOLTAGE (APPROX.) FOR Ib=1.0 MA. —45 voLTs



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1968 General Electric Co

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1968 GENERAL ELECTRIC CO
Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DCPlateSupplyVoltageBoostPlusDC	700 V	HorizontalDeflection
Peak Positive Pulse Plate Voltage	6600 V	HorizontalDeflection
Peak Negative Pulse Plate Voltage	1500 V	HorizontalDeflection
PeakNegativeGrid1Voltage	300 V	HorizontalDeflection
Peak Cathode Current	400 mA	HorizontalDeflection
BulbTemperatureMaximum	210 C	HorizontalDeflection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	AverageCharacteristics
Screen Voltage	250 V	AverageCharacteristics
Grid1 Voltage	-15 V	AverageCharacteristics
Plate Current	75 mA	AverageCharacteristics
Screen Current	4 mA	AverageCharacteristics
TriodeAmplificationFactor	8	TriodeConnection; PlateAndScreen=250V; Grid1=-15V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1 To Plate Capacitance	0.8 pF	—
Input Capacitance	11 pF	—
Output Capacitance	6 pF	—