



ELECTRONIC TUBE REFERENCE

12BQ6GT

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam-power tube for television horizontal-deflection output stages, combining 11 W plate dissipation with substantial pulse-voltage capability and controlled heater warm-up.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6AM	BASE PINS	8
NOMINAL HEATER	12.6 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

6AM - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	–	–	NC · verified
PIN2 – Pin 2	–	H – Heater	CONNECTED · verified
PIN3 – Pin 3	–	–	NC · verified
PIN4 – Pin 4	A	G2 – Screen Grid	CONNECTED · verified
PIN5 – Pin 5	A	G1 – Control Grid	CONNECTED · verified
PIN7 – Pin 7	–	H – Heater	CONNECTED · verified
PIN8 – Pin 8	A	BP – Beam-Forming Plate	CONNECTED · verified
PIN8 – Pin 8	A	K – Cathode	CONNECTED · verified

TERMINAL	SECTION	ELEMENT	STATUS
CAP1 – Top cap	A	P – Plate (Anode)	CONNECTED · verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	18000 Ω
TRANSCONDUCTANCE	0.006 S
MAXIMUM PLATE VOLTAGE	550 V
MAXIMUM SCREEN VOLTAGE	175 V
MAXIMUM PLATE DISSIPATION	11 W
MAXIMUM SCREEN DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	110 mA
<i>Published maximum ratings and characteristics promoted from supplied datasheet.</i>	

THE PLATE IS BROUGHT OUT TO A TOP CAP FOR ISOLATION OF THE HIGH VOLTAGE AND CONVENIENCE IN A CIRCUIT LAYOUT. ITS ELECTRICAL CHARACTERISTICS ARE SUCH AS TO PROVIDE GOOD PERFORMANCE WHERE THE SUPPLY VOLTAGES ARE LIMITED. THERMAL CHARACTERISTICS OF THE HEATER HAVE BEEN CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TUBES WHICH ARE SIMILLARLY CONTROLLED. EXCEPT FOR HEATER



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
Heater voltage	12.6 V	Nominal
Heater current	600 mA	Nominal
Plate voltage	1250 V	Typical operating conditions
Screen voltage	175 V	Typical operating conditions
Plate current	55 mA	Typical operating conditions



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID #1 TO PLATE: (G1 TO P)	0.6 pF	Published datasheet
INPUT: G1 TO (H}{K}{G2}{BP)	15 pF	Published datasheet

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE	12.6 V	Published datasheet
PLATE CURRENT	55 mA	Published datasheet
GRID #2 CURRENT	2.1 mA	Published datasheet

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE CURRENT	225 mA	Published datasheet
GRID #2 CURRENT	25 mA	Published datasheet
GRID #1 VOLTAGE (APPROX.)	-46 V	Published datasheet
Transconductance	0.0055 A/V	Published datasheet; promoted section value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM DC PLATE SUPPLY VOLTAGE (BOOST } POWER SUPPLY)	550 V	Published datasheet
MAXIMUM PEAK POSITIVE PLATE VOLTAGE (ABSOLUTE MAXIMUM)	5 V	Published datasheet; operating column 1
MAXIMUM PEAK POSITIVE PLATE VOLTAGE (ABSOLUTE MAXIMUM)	500 V	Published datasheet; operating column 2
MAXIMUM PEAK NEGATIVE PLATE VOLTAGE	1 V	Published datasheet; operating column 1
MAXIMUM PEAK NEGATIVE PLATE VOLTAGE	250 V	Published datasheet; operating column 2
MAXIMUM PLATE DISSIPATION S	11 W	Published datasheet
MAXIMUM DC GRID #2 VOLTAGE	175 V	Published datasheet
MAXIMUM GRID !	2 W	Published datasheet; operating column 1
MAXIMUM GRID !	2.5 W	Published datasheet; operating column 2
MAXIMUM AVERAGE CATHODE CURRENT	110 mA	Published datasheet
MAXIMUM PEAK CATHODE CURRENT	400 mA	Published datasheet
MAXIMUM GRID N1 CIRCUIT RESISTANCE	0.47 Mohm	Published datasheet
HEATER WARM- UP TIME (APPROX.)"``]	1 s	Published datasheet
PLATE RE SISTANCE	20 ohm	Published datasheet; operating column 1
PLATE RE SISTANCE	0 ohm	Published datasheet; operating column 2
CWITH Eb =	250 V	Published datasheet; operating column 1
CWITH Eb =	150 V	Published datasheet; operating column 2
CWITH Eb =	-22.5 V	Published datasheet; operating column 3
DWITN Eb =	60 V	Published datasheet; operating column 1
DWITN Eb =	150 V	Published datasheet; operating column 2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
E FOR Ib =	1 V	Published datasheet; operating column 1
E FOR Ib =	250 V	Published datasheet; operating column 2
E FOR Ib =	150 V	Published datasheet; operating column 3
FWITN E b = ECp =	150 V	Published datasheet; operating column 1
FWITN E b = ECp =	-22.5 V	Published datasheet; operating column 2
Ef =	12.6 V	Published datasheet
Maximum plate voltage	550 V	Published datasheet; promoted section value
Maximum screen voltage	175 V	Published datasheet; promoted section value
Maximum plate dissipation	11 W	Published datasheet; promoted section value
Maximum screen dissipation	2.5 W	Published datasheet; promoted section value
Maximum cathode current	110 mA	Published datasheet; promoted section value

TUBE TINKER

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