

ELECTRONIC TUBE REFERENCE

6CD6GA

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power tube designed for high-efficiency horizontal-deflection circuits in color and black-and-white television receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5BT	BASE PINS	8
NOMINAL HEATER	6.3 V / 2.5 A	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	7200 Ω
TRANSCONDUCTANCE	0.0077 S
AMPLIFICATION FACTOR	3.9
MAXIMUM PLATE VOLTAGE	700 V
MAXIMUM SCREEN VOLTAGE	175 V
MAXIMUM PLATE DISSIPATION	20 W
MAXIMUM SCREEN DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	700 mA
<i>7000 V positive and 1500 V negative pulse plate ratings parameterized</i>	

Beam power tube for high-efficiency horizontal-deflection circuits in color and black-and-white television receivers. It is an explicit heater variant/co-designation in 25CD6GB.pdf.



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	6.3 V	—
Heater current	2.5 A	—
Plate voltage	1500 V	Typical operating conditions
Plate current	22075 mA	Typical operating conditions



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	2.5 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	700 V	—
Maximum Plate Dissipation	15 W	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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-to-plate capacitance	1.1 pF	—
Input capacitance	22 pF	—
Output capacitance	8.5 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive pulse plate voltage	7000 V	HorizontalDeflection
Peak negative pulse plate voltage	-1500 V	HorizontalDeflection
Peak cathode current	700 mA	HorizontalDeflection
Plate voltage	175 V	ClassA
Grid #2 voltage	175 V	ClassA
Grid #1 voltage	-30 V	ClassA
Plate current	75 mA	ClassA
Grid #2 current	5.5 mA	ClassA



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	7000 V	HorizontalDeflection
Peak Negative Pulse Plate Voltage	1500 V	HorizontalDeflection
Peak Cathode Current	700 mA	HorizontalDeflection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1971 RCA HB3 Binder 4 of 7

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate	11 pF	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	60 V	Published table column 1 of 2
Plate Voltage	175 V	Published table column 2 of 2
Grid-No.1 (Control-Grid) Voltage	0 V	Published table column 1 of 2
Grid-No.1 (Control-Grid) Voltage	30 V	Published table column 2 of 2
Plate Resistance (Approx)	7200 Ω	—
Transconductance	7700 μS	—
Plate Current	230 mA	Published table column 1 of 2
Plate Current	75 mA	Published table column 2 of 2
plate current of	1 V	Published table column 1 of 2
plate current of	-55 V	Published table column 2 of 2

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC PLATE VOLTAGE	700 V	—
(Absolute maximum)®	7000 V	—
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500 V	—
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-50 V	—
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	200 V	—
Peak	700 mA	—
Average	200 mA	—
GRIQ-No	2 W	Published table column 1 of 2
GRIQ-No	3 W	Published table column 2 of 2
PLATE DISSIPATION†	20 W	—
Heater negative with respect to cathode	200 V	—
Heater positive with respect to cathode	200 V	—
The do component must not exceed	100 V	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-up Time (Average)	11 s	Other
Peak value -	200 V	Other;PublishedValue1
Peak value -	200 V	Other;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average value	100 V	Other;PublishedValue1
Average value	100 V	Other;PublishedValue2
DC Plate Voltage	700 V	MaximumRating
Peak Positive-Pulse Plate Voltage# (Absolute Maximum)	7000 V	MaximumRating
Peak Negative-Pulse Plate Voltage	1500 V	MaximumRating
DC Grid-No	2 V	MaximumRating;PublishedValue1
DC Grid-No	176 V	MaximumRating;PublishedValue2
Peak Negative-Pulse Grid-No.1 Voltage	700 V	MaximumRating
Peak Cathode Current	200 mA	MaximumRating
Average Cathode Current	-200 mA	MaximumRating
Plate Dissipation!	20 W	MaximumRating
Grid-No	2 W	MaximumRating;PublishedValue1
Grid-No	3 W	MaximumRating;PublishedValue2
Grid-No.-Circuit Resistance, for grid-resistor-bias operation	0.47 megohm	MaximumCircuitValue
Maximum Plate Voltage	700 V	Section1;Promoted
Maximum Screen Voltage	176 V	Section1;Promoted
Maximum Plate Dissipation	20 W	Section1;Promoted
Maximum Screen Dissipation	3 W	Section1;Promoted
Maximum Cathode Current	-200 A	Section1;Promoted

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	1.1 pF	Capacitance
Grid No.1 to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1
Grid No.1 to Cathode, Heater, Grid No	3 pF	Capacitance;PublishedValue2
Grid No.1 to Cathode, Heater, Grid No	22 pF	Capacitance;PublishedValue3
Plate to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode, Heater, Grid No	3 pF	Capacitance;PublishedValue2
Plate to Cathode, Heater, Grid No	8.6 pF	Capacitance;PublishedValue3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	60 V	Characteristic;PublishedValue1
Plate Voltage	176 V	Characteristic;PublishedValue2
Grid-No	2 V	Characteristic;PublishedValue1
Grid-No	100 V	Characteristic;PublishedValue2
Grid-No	176 V	Characteristic;PublishedValue3
Grid-No.1 (Control-Grid) Voltage	0 V	Characteristic;PublishedValue1
Grid-No.1 (Control-Grid) Voltage	-30 V	Characteristic;PublishedValue2
Plate Resistance (Approx.)	7200 ohm	Characteristic
Transconductance	7700 uS	Characteristic
Plate Current	5.5 mA	Characteristic
Grid-No.1 Voltage (Approx.) for plate current of	21 mA	Characteristic;PublishedValue1
Grid-No.1 Voltage (Approx.) for plate current of	6.5 mA	Characteristic;PublishedValue2
Published value	1 mA	Characteristic;PublishedValue1
Published value	-55 mA	Characteristic;PublishedValue2
Plate Resistance	7200 ohm	Section1;Promoted
Transconductance	7700 uS	Section1;Promoted

TUBE TINKER

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