

ELECTRONIC TUBE REFERENCE

CONSOLIDATED TECHNICAL DATA

12DQ6B

1 SECTION
CONSTRUCTION
BEAMPOWER

Power - TV Horizontal Output (sweep) electronic tube

High-current television horizontal-output beam-power tube with increased sweep capability, approximately 18 W plate dissipation, and strong positive and negative pulse-voltage ratings.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6AM	BASE PINS	7
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	0.0073 S
AMPLIFICATION FACTOR	4.4
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	200 V
MAXIMUM PLATE DISSIPATION	18 W
MAXIMUM SCREEN DISSIPATION	3.6 W
MAXIMUM CATHODE CURRENT	175 mA
<i>Published Westinghouse ratings, characteristics, capacitances, pulse/deflection data, and typical operating conditions promoted where applicable; additional values retained as parameters.</i>	

Glass-octal beam-power tube used as a horizontal-deflection amplifier in television receivers; the source groups the GW6/DQ6B heater variants.



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
PlateSupplyVoltageDC	770 V	HorizontalDeflection
PeakPositivePlateVoltage	6500 V	HorizontalDeflection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	64 mA	PentodeOperation;PlateVoltage=250V



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive plate voltage maximum	6000 V	Pulse
Peak negative pulse plate voltage maximum	-1500 V	Pulse
Average cathode current maximum	175 mA	—
Peak cathode current maximum	610 mA	Pulse
Typical plate voltage	250 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical grid2 voltage	150 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7300 μ S	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Horizontal-deflection output amplifier	—


SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage DC boost plus power supply	770 V	HorizontalDeflection
Peak positive pulse plate voltage	6000 V	HorizontalDeflection
Peak negative pulse plate voltage	1500 V	HorizontalDeflection
Peak negative grid 1 voltage	330 V	HorizontalDeflection
Peak cathode current	640 mA	HorizontalDeflection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current at 250 V plate, 150 V screen	55 mA	PentodeOperation
Screen current at 250 V plate, 150 V screen	1.5 mA	PentodeOperation
Triode μ	4.5	TriodeConnection

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
Maximum pulse duration	200 microseconds	Published in approved 17DQ6B target datasheet entry; Section1
be reduced to 100 mAwith a maximum pulse duration of	400 microseconds	Published in approved 17DQ6B target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3 12.6	16.8 V	Published in approved 17DQ6B target datasheet entry; Section1
Heater Current 1.2 0.6	450 mA	Published in approved 17DQ6B target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 17DQ6B target datasheet entry; Section1
DC Plate Supply Voltage	770 V	Published in approved 17DQ6B target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage*	6500 V	Published in approved 17DQ6B target datasheet entry; Section1
Peak Negative-Pulse Plate Voltage	1500 V	Published in approved 17DQ6B target datasheet entry; Section1
DC Grid-No.2 (Screen-Grid) Voltage	220 V	Published in approved 17DQ6B target datasheet entry; Section1
DC Grid-No.1 (Control-Grid) Voltage	55 V	Published in approved 17DQ6B target datasheet entry; Section1
Peak Negative-Pulse Grid-No.1 Voltage	330 V	Published in approved 17DQ6B target datasheet entry; Section1
Peak Cathode Current	550 mA	Published in approved 17DQ6B target datasheet entry; Section1
Average Cathode Current	175 mA	Published in approved 17DQ6B target datasheet entry; Section1
Plate Dissipation*	17.5 W	Published in approved 17DQ6B target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 Input	3.5 W	Published in approved 17DQ6B target datasheet entry; Section1
Bulb Temperature (At hottest point)	240 °C	Published in approved 17DQ6B target datasheet entry; Section1
Grid-No. 1-Circuit Resistance, for grid-resistor-bias operation	1 MΩ	Published in approved 17DQ6B target datasheet entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved 17DQ6B target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No	3 pF	Published in approved 17DQ6B target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 150 60	250 V	Published in approved 17DQ6B target datasheet entry; Section1
C.rid-No.2 Voltage 150 150	150 V	Published in approved 17DQ6B target datasheet entry; Section1
Grid-No. 1 Voltage -22.5 0	-22.5 V	Published in approved 17DQ6B target datasheet entry; Section1
Plate Resistance (Approx.)	15000 Ω	Published in approved 17DQ6B target datasheet entry; Section1
Grid-No.2 Current 32"	2.1 mA	Published in approved 17DQ6B target datasheet entry; Section1
1 mA	-42 V	Published in approved 17DQ6B target datasheet entry; Section1

TUBE TINKER

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