



ELECTRONIC TUBE REFERENCE

6JN6

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Duodecar beam-power tube designed for television horizontal-deflection amplification, with reduced grid-to-plate capacitance relative to 6JM6.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E12-74	BASE PINS	12
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	18000 Ω
TRANSCONDUCTANCE	0.0073 S
AMPLIFICATION FACTOR	4.4
MAXIMUM PLATE VOLTAGE	770 V
MAXIMUM SCREEN VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	17.5 W
MAXIMUM SCREEN DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	175 mA
WARM-UP TIME	11 s
<i>Horizontal-deflection output section.</i>	

Duodecar beam-power tube used as a horizontal-deflection amplifier; it is electrically related to 6JM6 with slightly lower grid-to-plate capacitance.



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	6500 V	HorizontalDeflection
Peak Negative Pulse Plate Voltage	1500 V	HorizontalDeflection
Peak Cathode Current	550 mA	HorizontalDeflection
Plate Voltage	250 V	Typical operation
Screen Voltage	150 V	Typical operation

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	65 mA	Typical operation
Screen Current	1.8 mA	Typical operation



SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.34 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	16 pF	—
Output capacitance	1.7 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive plate voltage	6500 V	Pulse
Peak negative pulse plate voltage	1500 V	Pulse
Positive DC beam-plate voltage	70 V	—
Peak cathode current	550 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Control-grid voltage	-22.5 V	—
Transconductance	7300 uS	—
Plate resistance	18000 Ohm	—
Triode amplification factor	4.4 ratio	TriodeConnection


SOURCE DATA APPENDIX

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	1.2 A	—
Plate Voltage	250 V	PentodeOperation
Screen Voltage	150 V	PentodeOperation

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage	-22.5 V	PentodeOperation
Plate Current	65 mA	PentodeOperation
Transconductance	7300 uS	PentodeOperation
Plate Resistance	18000 ohm	PentodeOperation

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Supply Voltage	770 V	HorizontalDeflection
Maximum Peak Positive Plate Voltage	6500 V	Pulse
Maximum Peak Negative Plate Voltage	1500 V	Pulse
Maximum Plate Dissipation	17.5 W	—
Maximum Screen Voltage	220 V	—
Maximum Screen Dissipation	3.5 W	—
Maximum Average Cathode Current	175 mA	—
Maximum Peak Cathode Current	550 mA	—


SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive pulse plate voltage	6500 V	HorizontalDeflection
Peak negative pulse plate voltage	1500 V	HorizontalDeflection
Peak cathode current	550 mA	HorizontalDeflection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	HorizontalDeflection
Grid 2 voltage	150 V	HorizontalDeflection
Grid 1 voltage	-22.5 V	HorizontalDeflection
Plate current	65 mA	HorizontalDeflection


SOURCE DATA APPENDIX

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

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	6500 V	HorizontalDeflection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	16 pF	—
Output Capacitance	7 pF	—


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
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	10 microseconds	Published in approved 17JN6 target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3 12.6	16.8 V	Published in approved 17JN6 target datasheet entry; Section1
Heater Current 1.2 0.6	450 mA	Published in approved 17JN6 target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 17JN6 target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3	18.9 V	Published in approved 17JN6 target datasheet entry; Section1
Heater Current 0.45	150 mA	Published in approved 17JN6 target datasheet entry; Section1
Heater Warm-up Time (Average)	11 seconds	Published in approved 17JN6 target datasheet entry; Section1
Plate Voltage 300	300 V	Published in approved 17JN6 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.34 pF	Published in approved 17JN6 target datasheet entry; Section1
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	16 pF	Published in approved 17JN6 target datasheet entry; Section1
Plate to Cathode, Heater, Grid No.2, and Grid No.3	7 pF	Published in approved 17JN6 target datasheet entry; Section1
Grid No.1 to Plate	0.01 pF	Published in approved 17JN6 target datasheet entry; Section1
Shield	5.5 pF	Published in approved 17JN6 target datasheet entry; Section1
Shield	3.4 pF	Published in approved 17JN6 target datasheet entry; Section1
Grid to Plate	1.7 pF	Published in approved 17JN6 target datasheet entry; Section1
and Internal Shield	3.2 pF	Published in approved 17JN6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
and Internal Shield	2.2 pF	Published in approved 17JN6 target datasheet entry; Section1