

ELECTRONIC TUBE REFERENCE

6J7GT

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

GT-envelope sharp-cutoff pentode for detector and high-gain voltage-amplifier service. High plate resistance and modest transconductance provide substantial receiver gain, with manufacturer data also supporting triode connection.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7R	BASE PINS	7
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7R - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – SH	A	SH – Internal Shield	CONNECTED
PIN2 – H	–	H – Heater	CONNECTED
PIN3 – P	A	P – Plate (Anode)	CONNECTED
PIN4 – G2	A	G2 – Screen Grid	CONNECTED
PIN5 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED
PIN8 – K	A	K – Cathode	CONNECTED
CAP1 – G1	A	G1 – Control Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.001225 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	0.75 W
MAXIMUM SCREEN DISSIPATION	0.1 W
<i>Published maximum ratings, characteristics, operating conditions and capacitances reviewed.</i>	

GT-envelope detector/amplifier pentode specified as having the same basic characteristics as the 6J7G except interelectrode capacitances.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode-connected operation	Published	TriodeConnection



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	1500000 ohm	—
Transconductance	1225 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	125 V	—
Maximum Plate Dissipation	0.75 W	—
Maximum Screen Dissipation	0.1 W	—



1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7
Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF amplification	—



SOURCE DATA APPENDIX

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS
Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	Published handbook rating
Maximum screen voltage	150 V	Published handbook rating
Plate voltage	250 V	ClassA
Screen voltage	100 V	ClassA
Control-grid bias	3 V	ClassA
Plate current	2 mA	ClassA
Screen current	0.5 mA	ClassA
Triode-connected plate voltage	250 V	TriodeConnection ClassA
Triode-connected control-grid bias	8 V	TriodeConnection ClassA
Triode-connected plate current	6.5 mA	TriodeConnection ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1000000 ohm	Published handbook characteristic
Transconductance	1225 μ S	Published handbook characteristic
Heater voltage	6.3 V	Published heater rating
Heater current	300 mA	Published heater rating
Triode-connected plate resistance	10500 ohm	TriodeConnection
Triode-connected transconductance	1900 μ S	TriodeConnection
Triode-connected amplification factor	20	TriodeConnection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA;PentodeConnection
Screen-grid voltage	100 V	ClassA;PentodeConnection
Control-grid voltage	-3 V	ClassA;PentodeConnection
Plate current	2 mA	ClassA;PentodeConnection
Screen-grid current	0.5 mA	ClassA;PentodeConnection

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1250 μ S	PentodeConnection
Plate resistance	1500000 Ohm	PentodeConnection
Control-grid cutoff voltage	-7 V	PentodeConnection
Amplification factor	20 ratio	TriodeConnection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1900 μ S	TriodeConnection
Plate resistance	100000 Ohm	TriodeConnection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	4.6 pF	PentodeConnection
Output capacitance	12 pF	PentodeConnection



SOURCE OPERATING CONDITIONS

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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Published operating/characteristic table
Screen Voltage	100 V	Published operating/characteristic table
Grid Voltage	-3 V	Published operating/characteristic table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	2 mA	Published operating/characteristic table
Screen Current	0.5 mA	Published operating/characteristic table
Transconductance	1225 μ S	Published operating/characteristic table
Plate Resistance	7 ohm	Published operating/characteristic table

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