



ELECTRONIC TUBE REFERENCE

6SL7GT

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

High-mu twin triode for resistance-coupled voltage amplification and phase inversion, widely applicable to low-level Class-A signal stages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	RETMA 8BD	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	44000 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1 W
Representative row for each identical triode section.	

SECTION2 Triode	
PLATE RESISTANCE	44000 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1 W
<i>Second identical physical triode section; added to align rows with SectionCount.</i>	

High-mu twin triode used as a phase inverter and in resistance-coupled amplifier circuits. Explicit heater variant/co-designation of 12SL7GT in the approved source.



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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	300 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	300 mA	—



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	Published handbook rating
Plate voltage	250 V	ClassA OperatingPoint1
Control-grid bias	2 V	ClassA OperatingPoint1
Plate current	2.3 mA	ClassA OperatingPoint1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	44000 ohm	ClassA OperatingPoint1
Transconductance	1600 μ S	ClassA OperatingPoint1
Amplification factor	70	ClassA OperatingPoint1
Heater voltage	6.3 V	Published heater rating
Heater current	300 mA	Published heater rating



SOURCE DATA APPENDIX

1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Voltage amplifier / phase inverter	—



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 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Each section
Plate Current	2.3 mA	Each section
Transconductance	1600 μ S	Each section
Plate Resistance	44000 ohm	Each section
Amplification Factor	70 ratio	Each section



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA1;EachUnit

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	2.3 mA	ClassA1;EachUnit



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1600 μ S	ClassA
Plate resistance	44000 ohm	ClassA
Amplification factor	70	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3 pF	Section1
Output capacitance	3 pF	Section1



SOURCE DATA APPENDIX

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA
Grid Voltage	-2 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	2.3 mA	ClassA



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current	300 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to plate – published value 1	2.8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to plate – published value 2	2.8	Published datasheet value; multiple values represent separate source-table limits or conditions.
heater – published value 1	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
heater – published value 2	3.4	Published datasheet value; multiple values represent separate source-table limits or conditions.
heater – published value 1	3.8	Published datasheet value; multiple values represent separate source-table limits or conditions.
heater – published value 2	3.2	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 1 -Grid of – published value 1	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 -Grid of – published value 2	5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Plate of – published value 1	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Plate of – published value 2	6	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Cathode of – published value 1	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Cathode of – published value 2	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Unit No.2	8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 4 -Grid of	4	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage	250 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid Voltage	-2 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.)	44000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance	1600	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current	2.3 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	300 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Positive bias value	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater negative with respect to cathode	90 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater positive with respect to cathode	90 V	Published datasheet value; multiple values represent separate source-table limits or conditions.



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Heater-Cathode Voltage	90 V	TypicalOperation;PublishedValue1
Peak Heater-Cathode Voltage	90 V	TypicalOperation;PublishedValue2
Plate Voltage	300 V	MaximumRating
Grid Voltage. Positive-bias value	0 V	MaximumRating
Plate Dissipation	1 W	MaximumRating
Maximum Plate Voltage	300 V	Section1
Maximum Plate Dissipation	1 W	Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	2.8 pF	Capacitance;PublishedValue1
Grid to Plate	2.8 pF	Capacitance;PublishedValue2
Grid to Cathode and Heater	3.4 pF	Capacitance
Plate to Cathode and Heater	3.2 pF	Capacitance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Characteristic
Grid Voltage	-2 V	Characteristic
Plate Resistance (Approx. t	44000 ohm	Characteristic
Transconductance	11500 uS	Characteristic
Plato Current	2 mA	Characteristic
Plate Resistance	44000 ohm	Section1
Amplification Factor	70	Section1