



ELECTRONIC TUBE REFERENCE

6681

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Industrial high-mu twin triode for mobile communications equipment, intended for phase-inverter and resistance-coupled voltage-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	12.6 V / 150 mA	PARALLEL HEATER	6.3 V / 300 mA
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	62500 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.1 W
Representative electrical row for repeated identical physical sections.	

SECTION2 Triode	
PLATE RESISTANCE	62500 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.1 W
<i>Second physical triode restored under current one-row-per-physical-section policy.</i>	

Industrial high-mu twin triode for phase-inverter and resistance-coupled amplifier service in mobile communications equipment.



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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	62500 ohm	—
Transconductance	1600 μ S	—
Amplification Factor	100	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Plate Dissipation	1.1 W	—
Heater Voltage Series	12.6 V	—
Heater Current Series	150 mA	—
Heater Voltage Parallel	6.3 V	—
Heater Current Parallel	300 mA	—



SOURCE OPERATING CONDITIONS

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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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	12.6 V	—
Heater Current	150 mA	—
EquivalentType	12AX7	RenewalUse



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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
Heater voltage	12.6 V	Nominal
Heater current	150 mA	Nominal
Plate voltage	330 V	Published operating table; OperatingPoint1
Plate voltage	100 V	Published operating table; OperatingPoint1
Plate voltage	250 V	Published operating table; OperatingPoint2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	0.5 mA	Published operating table; OperatingPoint1
Plate current	1.2 mA	Published operating table; OperatingPoint2
Transconductance	1250 μ S	Published operating table; OperatingPoint1
Transconductance	1600 μ S	Published operating table; OperatingPoint2



SOURCE DATA APPENDIX

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 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater series voltage	12.6 V	SeriesHeater
Heater series current	150 mA	SeriesHeater
Heater parallel voltage	6.3 V	ParallelHeater
Heater parallel current	300 mA	ParallelHeater
Class-A plate resistance low point	80000 ohm	ClassA
Class-A transconductance low point	1250 uS	ClassA
Class-A plate resistance high point	62500 ohm	ClassA
Class-A transconductance high point	1600 uS	ClassA
Amplification factor	100	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage maximum	330 V	—
Plate dissipation maximum	1.1 W	—
Negative grid voltage maximum	-55 V	—
Class-A plate voltage low point	100 V	ClassA
Class-A grid voltage low point	-1 V	ClassA
Class-A plate current low point	0.5 mA	ClassA
Class-A plate voltage high point	250 V	ClassA
Class-A grid voltage high point	-2 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Class-A plate current high point	1.2 mA	ClassA



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1966 Tung Sol Electronic Tubes 4 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AVERAGE VALUES –VOLTAGE – published value 1	12.6 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
AVERAGE VALUES –VOLTAGE – published value 2	6.3 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
–CURRENT – published value 1	150 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
–CURRENT – published value 2	300 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
VOLTAGE OPERATION – published value 1	12.612 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
VOLTAGE OPERATION – published value 2	5 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
VOLTAGE OPERATION – published value 3	6.311 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
VOLTAGE OPERATION – published value 4	3 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE	330 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
POSITIVE DC GRID VOLTAGE	0 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
NEGATIVE DC GRID VOLTAGE	55 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE DISSIPATION	1.1 W	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE – published value 1	100 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE – published value 2	250 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID VOLTAGE – published value 1	-1 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID VOLTAGE – published value 2	-2 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT – published value 1	0.5 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT – published value 2	1.2 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE – published value 1	1250 μS	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE – published value 2	1600 μS	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
AMPLIFICATION FACTOR – published value 1	100	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
AMPLIFICATION FACTOR – published value 2	100	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.



1971 RCA HB3 Binder 3 of 7

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

1971 RCA HB3 BINDER 3 OF 7
Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	300 mA	Nominal
Heater voltage series	12.6 V	Series
Heater current series	150 mA	Series
Heater voltage parallel	6.3 V	Parallel
Heater current parallel	300 mA	Parallel
Maximum plate voltage	330 V	Promoted published value
Maximum plate dissipation	1.1 W	Promoted published value
Plate Voltage	250 V	Characteristics, Class AI AmDlIfier (Each Unit):
Grid Voltage	-2 V	Characteristics, Class AI AmDlIfier (Each Unit):
Amplification Factor	100 A	Characteristics, Class AI AmDlIfier (Each Unit):
Plate Resistance (Approx.)	0.0625 megohm	Characteristics, Class AI AmDlIfier (Each Unit):
Transconductance	1600 uS	Characteristics, Class AI AmDlIfier (Each Unit):
Plate Current	1.2 mA	Characteristics, Class AI AmDlIfier (Each Unit):
PLATE VOLTAGE	330 V	AMPLIFIER — Class AI
PLATE DISSIPATION	1.1 W	AMPLIFIER — Class AI
to cathode	200 V	AMPLIFIER — Class AI
much as	35 V	AMPLIFIER — Class AI

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	62500 ohm	Promoted published value
Transconductance	1600 uS	Promoted published value
Amplification factor	100	Promoted published value
Voltage	20 V	—

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	1.7 pF	Capacitance;PublishedValue1
Grid to Plate	1.7 pF	Capacitance;PublishedValue2
Grid to Cathode and Heater	1.6 pF	Capacitance;PublishedValue1
Grid to Cathode and Heater	1.6 pF	Capacitance;PublishedValue2
Plate to Cathode and Heater	0.46 pF	Capacitance;PublishedValue1
Plate to Cathode and Heater	0.34 pF	Capacitance;PublishedValue2

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	330 V	MaximumRatings
Negative-bias value	55 V	MaximumRatings
Positive-bias value	0 V	MaximumRatings
Plate Dissipation	1.1 W	MaximumRatings

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	Characteristics;PublishedValue1
Plate Voltage	250 V	Characteristics;PublishedValue2
Grid Voltage	1 V	Characteristics
Plate Resistance (Approx.)	80000 ohm	Characteristics;PublishedValue1
Plate Resistance (Approx.)	62500 ohm	Characteristics;PublishedValue2
Plate Current	0.5 mA	Characteristics;PublishedValue1
Plate Current	1.2 mA	Characteristics;PublishedValue2

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