ELECTRONIC TUBE REFERENCE

6680

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
TRIODE-TRIODE

> Industrial medium-mu twin triode intended for mobile communications equipment, particularly phase-inverter and push-pull amplifier circuits requiring two complementary triode sections.

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	7700 Ω
TRANSCONDUCTANCE	0.0022 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3 W

Representative electrical row for repeated identical physical sections.

SECTION2 Triode

PLATE RESISTANCE	7700 Ω
TRANSCONDUCTANCE	0.0022 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3 W

Second physical triode restored under current one-row-per-physical-section policy.

> Industrial medium-mu twin triode for phase-inverter or push-pull amplifier service in mobile communications equipment.

SOURCE OPERATING CONDITIONS

1950 Sylvania

SOURCE PDF

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	**7700 ohm**	—
Transconductance	**2200 µS**	—
Amplification Factor	**17**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum Plate Voltage	**330 V**	—
Maximum Plate Dissipation	**3 W**	—
Heater Voltage Series	**12.6 V**	—
Heater Current Series	**150 mA**	—
Heater Voltage Parallel	**6.3 V**	—
Heater Current Parallel	**300 mA**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1960 RCA Industrial and Communications Types

SOURCE PDF

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1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage	**12.6 V**	—
Heater Current	**150 mA**	—
EquivalentType	**12AU7A**	RenewalUse

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**
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**
Transconductance	**3100 uS**	Published operating table; OperatingPoint1
Transconductance	**2200 uS**	Published operating table; OperatingPoint2

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

SOURCE PDF

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1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage	**12.6 V**	—
Heater Current	**150 mA**	—
EquivalentElectricalType	**12AU7**	—
Plate Voltage	**250 V**	—
Grid Voltage	**-8.5 V**	—
Plate Current	**10.5 mA**	—
Transconductance	**2200 uS**	—
Plate Resistance	**7700 ohm**	—
Amplification Factor	**17**	—
ReducedHeaterTransconductance	**1750 uS**	HeaterVoltage=10V

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 4 of 4

SOURCE PDF

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.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
-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	**12.62 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	**6.3 V**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
VOLTAGE OPERATION — published value 4	**1.3 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.
POSITIVE DC GRID VOLTAGE	**0 V**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE DISSIPATION	**3 W**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
WITH FIXED BIAS	**0.25 ohm**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
WITH CATHODE BIAS	**1 ohm**	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	**0 V**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID VOLTAGE — published value 2	**-8.5 V**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT — published value 1	**11.8 mA**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT — published value 2	**10.5 mA**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE — published value 1	**3100 uS**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE — published value 2	**2200 uS**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
AMPLIFICATION FACTOR — published value 1	**20**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
AMPLIFICATION FACTOR — published value 2	**17**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE RESISTANCE, APPROX. — published value 1	**6500 ohm**	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

SOURCE OPERATING CONDITIONS

SOURCE PDF

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

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage parallel	**6.3 V**	Parallel
Heater current parallel	**300 mA**	Parallel
Maximum plate voltage	**330 V**	Promoted published value
Maximum plate dissipation	**3 W**	Promoted published value
PLATE VOLTAGE	**330 V**	Maximum RatingsE Design-Maximum Values:
PLATE DISSIPATION	**3 W**	Maximum RatingsE Design-Maximum Values:
to cathode	**200 V**	Maximum RatingsE Design-Maximum Values:
For cathode-bias operation	**1 megohm**	Maximum RatingsE Design-Maximum Values:
much as	**35 V**	Maximum RatingsE Design-Maximum Values:

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	**7700 ohm**	Promoted published value
Transconductance	**2200 uS**	Promoted published value
Amplification factor	**17**	Promoted published value
Voltage	**20 V**	—
Plate Voltage	**250 V**	—
Grid Voltage	**8.5 V**	—
Amplification Factor	**17 A**	—
Plate Resistance (Approx.)	**7700 ohm**	—
Transconductance	**2200 uS**	—
Plate Current	**10.5 mA**	—
Grid Voltage (Approx.) for plate µa =	**24 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

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage (ac/dc)	**12.6 V**	TypicalOperation
Heater Current	**150 mA**	TypicalOperation;PublishedValue1
Heater Current	**300 mA**	TypicalOperation;PublishedValue2
Plate Voltage	**330 V**	MaximumRatings
Grid Voltage, positive-bias value	**0 V**	MaximumRatings
For fixed-bias operation	**0.25 megohm**	MaximumCircuitValues
For cathode-bias operation	**1 megohm**	MaximumCircuitValues
and grid volts	**-8.5 V**	ReducedHeaterPerformance

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid to Plate	**1.5 pF**	Capacitance;PublishedValue1
Grid to Plate	**1.5 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	**0.4 pF**	Capacitance;PublishedValue1
Plate to Cathode and Heater	**0.32 pF**	Capacitance;PublishedValue2

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage	**100 V**	Characteristics;PublishedValue1
Plate Voltage	**250 V**	Characteristics;PublishedValue2
Grid Voltage	**0 V**	Characteristics;PublishedValue1
Grid Voltage	**-8.5 V**	Characteristics;PublishedValue2
Plate Resistance (Approx.)	**6500 ohm**	Characteristics;PublishedValue1
Plate Resistance (Approx.)	**7700 ohm**	Characteristics;PublishedValue2
Plate Current	**11.8 mA**	Characteristics;PublishedValue1
Plate Current	**10.5 mA**	Characteristics;PublishedValue2
Grid Voltage (Approx.) for plate current of 10 fiA.	**-24 V**	Characteristics

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