



ELECTRONIC TUBE REFERENCE

5687

Power - Triode Single (under 10W) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

High-perveance medium-mu double triode with independent sections and series/parallel heater operation, intended for general amplifier service and also carrying published pulse ratings.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9H	BASE PINS	9
NOMINAL HEATER	12.6 V / 450 mA	PARALLEL HEATER	6.3 V / 900 mA
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9H - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 2P	B	P – Plate (Anode)	CONNECTED
PIN2 – 2G1	B	G1 – Control Grid	CONNECTED
PIN3 – 2K	B	K – Cathode	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – 1K	A	K – Cathode	CONNECTED
PIN7 – 1G1	A	G1 – Control Grid	CONNECTED
PIN8 – HCT	–	HCT – Heater Center Tap	CONNECTED
PIN9 – 1P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	2000 Ω
TRANSCONDUCTANCE	0.0085 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	4.2 W
<i>Representative electrical section for identical repeated sections.</i>	

SECTION2 Triode	
PLATE RESISTANCE	2000 Ω
TRANSCONDUCTANCE	0.0085 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	4.2 W
<i>Second physical triode restored under current one-row-per-physical-section policy.</i>	

High-perveance medium-mu double triode with independent sections and series/parallel heater operation.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Compagnie General

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

1958 COMPAGNIE GENERAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage Series	12.6 V	—
Heater Current Series	450 mA	—
Heater Voltage Parallel	6.3 V	—
Heater Current Parallel	900 mA	—
Plate Dissipation per Section	4.2 W	EachSection
Total Plate Dissipation	7.5 W	BothSections

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	2100 ohm	Representative
Transconductance	8250 uS	Representative



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	4 pF	—
Output Capacitance	0.6 pF	—
Grid-to-Plate Capacitance	4 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	180 V	ClassA;Point1
Grid Voltage	-7 V	ClassA;Point1
Plate Current	21 mA	ClassA;Point1
Plate Resistance	8250 ohm	ClassA;Point1
Transconductance	2100 uS	ClassA;Point1
Amplification Factor	17.5	ClassA;Point1
Plate Voltage	250 V	ClassA;Point2
Grid Voltage	-12.5 V	ClassA;Point2
Plate Current	12.5 mA	ClassA;Point2
Plate Resistance	5500 ohm	ClassA;Point2
Transconductance	3000 uS	ClassA;Point2
Amplification Factor	16.5	ClassA;Point2



SOURCE DATA APPENDIX

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

Section 1 · Triode

APPLICATION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	General-purpose amplifier	—


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	450 mA	Nominal
Plate voltage	120 V	Published operating table; OperatingPoint1
Plate voltage	180 V	Published operating table; OperatingPoint2
Plate voltage	250 V	Published operating table; OperatingPoint3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	36 mA	Published operating table; OperatingPoint1
Plate current	23 mA	Published operating table; OperatingPoint2
Plate current	12 mA	Published operating table; OperatingPoint3
Transconductance	11 uS	Published operating table; OperatingPoint1
Transconductance	500 uS	Published operating table; OperatingPoint2
Transconductance	8 uS	Published operating table; OperatingPoint3
Transconductance	500 uS	Published operating table; OperatingPoint4


SOURCE DATA APPENDIX

1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	180 V	ClassA;EachSection
Grid voltage	-7 V	ClassA;EachSection
Plate current	23 mA	ClassA;EachSection
Maximum inverse plate voltage	1000 V	Pulse
Total plate dissipation both units	7.5 W	BothSections

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	2000 ohm	ClassA;EachSection
Transconductance	8500 uS	ClassA;EachSection
Amplification factor	17	ClassA;EachSection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	4 pF	EachSection
Heater-to-cathode capacitance	7 pF	EachSection
Plate-to-plate capacitance	0.75 pF	BetweenSections



SOURCE DATA APPENDIX

1971 RCA HB3 Binder 3 of 7

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

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	—330 V	—
Maximum plate dissipation	—4.2 W	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	2000 Ω	—
Transconductance	8500 μS	—
Amplification factor	17	—
Plate voltage	120 V	ClassA
Plate voltage	180 V	ClassA
Plate voltage	250 V	ClassA
Grid voltage	-2 V	ClassA
Grid voltage	-7 V	ClassA
Grid voltage	-12.5 V	ClassA
Amplification factor	18	ClassA
Amplification factor	17	ClassA
Amplification factor	16	ClassA
Plate resistance	1560 Ω	ClassA
Plate resistance	2000 Ω	ClassA
Plate resistance	3000 Ω	ClassA
Transconductance	11500 μS	ClassA
Transconductance	8500 μS	ClassA
Transconductance	5400 μS	ClassA
Plate current	36 mA	ClassA
Plate current	23 mA	ClassA
Plate current	12 mA	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to plate (Each unit)	4 pF	—
Grid to cathode and heater (Each unit).	4 pF	—

TUBE TINKER

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and their source documents.

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