



ELECTRONIC TUBE REFERENCE

ECC91

Power - Triode Single (under 10W) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Common-cathode VHF double triode for RF power amplification, oscillator, mixer, and frequency-multiplier service, capable of several watts RF output and operation to roughly 250 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Miniature	BASE PINS	7
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	7100 Ω
TRANSCONDUCTANCE	0.0053 S
AMPLIFICATION FACTOR	38
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	22 mA
Representative section for two electrically similar triodes.	

SECTION2 Triode	
PLATE RESISTANCE	7100 Ω
TRANSCONDUCTANCE	0.0053 S
AMPLIFICATION FACTOR	38
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	22 mA
<i>Second physical triode restored.</i>	

VHF double triode with common cathode for RF power amplifier, oscillator, and frequency-multiplier service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1951 Mullard Valve and Service Manual

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

1951 MULLARD VALVE AND SERVICE MANUAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	450 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
Maximum Plate Voltage	330 V	—
Maximum Plate Dissipation	2.5 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5300 μ S	Typical

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification Factor	38	Typical
Plate Resistance	7100 ohm	Typical


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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	450 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	3.5 W	BothSections


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	400 mA	—
Plate Voltage	100 V	EachSection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	8.5 mA	EachSection
Cathode Resistor	100 ohm	EachSection
Transconductance	5300 uS	EachSection
Amplification Factor	38 ratio	EachSection
Plate Resistance	7100 ohm	EachSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	ClassC; PushPull; RFamplifier; Oscillator; 80MHz
Plate Current	15 mA	EachSection; ClassC; PushPull; 80MHz
RF Output Power	8 W	PushPull; 80MHz



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1a

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	EachSection
Plate current	9 mA	EachSection
Grid voltage	-0.9 V	EachSection
Transconductance	5.6 mA/V	EachSection
Amplification factor	38	EachSection
Plate resistance	6.8 kOhm	EachSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	ClassC PushPull RFamplifier

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Total plate current	16.9 mA	ClassC PushPull 100Mc/s
Load power	1.47 W	ClassC PushPull 100Mc/s
Maximum plate voltage	300 V	EachSection
Maximum plate dissipation	1.5 W	EachSection
Maximum cathode current	22 mA	EachSection
Maximum frequency	250 Mc/s	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-grid capacitance	1.6 pF	EachSection



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1967 Mullard Receiving Tubes for Maintenance

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

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	EachSection
Plate current	9 mA	EachSection
Grid voltage	-0.9 V	EachSection
Transconductance	5.6 mA/V	EachSection
Amplification factor	38	EachSection
Plate resistance	6.8 kOhm	EachSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	ClassC PushPull RFAmplifier
Total plate current	16.9 mA	ClassC PushPull 100Mc/s

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Load power	1.47 W	ClassC PushPull 100Mc/s
Maximum plate voltage	300 V	EachSection
Maximum plate dissipation	1.5 W	EachSection
Maximum cathode current	22 mA	EachSection
Maximum frequency	250 Mc/s	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-grid capacitance	1.6 pF	EachSection


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1969 Tesla Manual of Electronic Tubes

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

1969 TESLA MANUAL OF ELECTRONIC TUBES

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	450 mA	Published nominal value
Transconductance	1900 μ S	Published operating characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	1.5 W	Published maximum rating
Application	RF amplifier, mixer, phase inverter	Printed source applications


SOURCE DATA APPENDIX

1999 Philips E-Z

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

1999 PHILIPS E-Z
Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
1) Automatic grid bias	1 mA	1) Automatic grid bias