



ELECTRONIC TUBE REFERENCE

6Q7G

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL
DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-TRIODE

Glass-envelope double-diode high-mu triode for detector, AVC, and low-frequency voltage amplification. Paired diodes provide signal and control rectification while the triode supplies substantial subsequent gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	InternationalOctal	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM CATHODE CURRENT	10 mA
NOMINAL OUTPUT CURRENT	10 mA
Promoted values and additional parameters were taken from the supplied Ferranti datasheet tables.	

SECTION2 Diode	
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM CATHODE CURRENT	10 mA
NOMINAL OUTPUT CURRENT	10 mA
Promoted values and additional parameters were taken from the supplied Ferranti datasheet tables.	

SECTION3 Triode	
PLATE RESISTANCE	58000 Ω
TRANSCONDUCTANCE	0.0012 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	300 V
<i>Promoted values and additional parameters were taken from the supplied Ferranti datasheet tables.</i>	

High-mu double-diode triode for detector and Class A voltage-amplifier service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 3 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.3 pF	Section1
Input capacitance	2.7 pF	Section1
Output capacitance	4.5 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	ClassA
Grid bias	-1.5 V	ClassA
Plate current	0.35 mA	ClassA
Plate voltage	250 V	ClassA
Grid bias	-3 V	ClassA
Plate current	1.1 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	87500 Ω	100VPlate
Transconductance	800 μ S	100VPlate
Amplification factor	70	Section1
Plate resistance	58000 Ω	250VPlate
Transconductance	1200 μ S	250VPlate

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 · Diode

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

1948 BRIMAR RADIO VALVE MANUAL

Section 3 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification Factor	70	—

TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

1950 Sylvania

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

1950 SYLVANIA

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate current	1.1 mA	ClassA

TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

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 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Signal detection	—

1958 BRIMAR RADIO VALVE NO 7

Section 3 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Audio-frequency amplification	—



SOURCE DATA APPENDIX

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 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode plate voltage maximum	200 V	Diode1
Diode current maximum	10 mA	Diode1

1961 FERRANTI TECHNICAL HANDBOOK

Section 2 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode plate voltage maximum	200 V	Diode2
Diode current maximum	10 mA	Diode2

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	100 V	ClassA
Control-grid voltage	-1 V	ClassA
Plate current	0.8 mA	ClassA
Plate voltage	250 V	ClassA
Control-grid voltage	-3 V	ClassA
Plate current	1 mA	ClassA
Peak output voltage	49 V	ResistanceCoupledAmplifier;Va=250V
Stage gain	56 ratio	ResistanceCoupledAmplifier;Va=250V

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1200 uS	ClassA
Plate resistance	58000 Ohm	ClassA
Amplification factor	70 ratio	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	2 pF	6Q7G
Input capacitance	1.8 pF	6Q7GT
Output capacitance	4 pF	6Q7G
Output capacitance	3.4 pF	6Q7GT