

ELECTRONIC TUBE REFERENCE

DF66

Voltage Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Mullard subminiature AF voltage-amplifying pentode for hearing aids and low-current battery service. Its directly heated construction provides small-signal audio gain while keeping filament consumption suitable for miniature portable equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	SUBMINIATURE	BASE PINS	8
NOMINAL HEATER	0.625 V / 15 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	2000000 Ω
TRANSCONDUCTANCE	0.0001 S
MAXIMUM PLATE VOLTAGE	45 V
MAXIMUM SCREEN VOLTAGE	45 V
Subminiature AF pentode for hearing-aid service.	

The Mullard DF66 is a subminiature AF voltage-amplifying pentode for hearing aids and low-current battery 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 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage	22.5 V	—
Screen Voltage	22.5 V	—
Anode Current	50 uA	—



SOURCE OPERATING CONDITIONS

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1963 Mullard

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

1963 MULLARD

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage	0.625 V	—
Filament Current	15 mA	—
Plate Voltage	22.5 V	—
Screen Voltage	22.5 V	—
Plate Current	0.05 mA	—
Screen Current	0.015 mA	—
Grid Voltage	-1.05 V	—
Transconductance	100 uS	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	2000000 ohm	Minimum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage Gain	33 ratio	ResistanceCoupled; FixedBias
Voltage Gain	35 ratio	ResistanceCoupled; GridCurrentBias
Maximum Plate Voltage	45 V	—
Maximum Screen Voltage	45 V	—
Maximum Cathode Current	0.1 mA	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V1

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control-grid capacitance	1.6 pF	—
Plate capacitance	2.2 pF	—
Grid-to-plate capacitance	0.15 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	22.5 V	HearingAid
Screen voltage	22.5 V	HearingAid
Plate current	50 uA	HearingAid
Screen current	15 uA	HearingAid
Grid voltage	-1.05 V	HearingAid

Characteristic		
Parameter	Published Value	Condition / Note
Transconductance	100 μ S	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Pentode

Capacitance		
Parameter	Published Value	Condition / Note
Input capacitance	1.6 pF	—
Output capacitance	2.2 pF	—
Plate-grid capacitance maximum	0.15 pF	—

Characteristics		
Parameter	Published Value	Condition / Note
Plate voltage	22.5 V	—
Screen voltage	22.5 V	—
Plate current	50 μ A	—
Screen current	15 μ A	—
Grid bias	-1.05 V	—
Transconductance	100 μ S	—
Plate resistance	2 Mohm	Minimum
Screen-grid amplification factor	11.5	—