



ELECTRONIC TUBE REFERENCE

EF40

Voltage - Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Low-noise pentode developed specifically for audio preamplification of microphone, pickup, and other weak low-level signals.

GENERAL CHARACTERISTICS

BASE DESIGNATION	RIMLOCK	BASE PINS	8
NOMINAL HEATER	6.3 V / 200 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	2300000 Ω
TRANSCONDUCTANCE	0.002 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	200 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM SCREEN DISSIPATION	0.4 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Published ratings/characteristics promoted from the approved source.</i>	

Low-noise voltage-amplifier pentode for audio-frequency preamplifier 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

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Primary application	Audio-frequency voltage amplification	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Low-microphony construction	Yes	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 La Radiotechnique

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

1953 LA RADIOTECHNIQUE

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	200 mA	Nominal
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	200 V	—
Maximum Plate Dissipation	1 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2000 μ S	Typical
Amplification Factor	4600	Typical
Plate Resistance	2300000 ohm	Typical



SOURCE DATA APPENDIX

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 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	200 mA	Published heater rating
Transconductance	1850 μ S	AFAmplifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	AFAmplifier
Screen voltage	140 V	AFAmplifier
Grid bias	-2 V	AFAmplifier
Plate current	3 mA	AFAmplifier
Screen current	0.55 mA	AFAmplifier



SOURCE DATA APPENDIX

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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cross-reference type	EF86	Electrical ratings and characteristics
Maximum heater-cathode voltage	50 V	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Intended service	High-gain RC-coupled AF voltage amplifier	—



SOURCE DATA APPENDIX

1968 Mazda Belvu

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

1968 MAZDA BELVU

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	200 mA	Nominal
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	200 V	—
Maximum Plate Dissipation	1 W	—
Maximum Screen Dissipation	0.4 W	—
Maximum Cathode Current	15 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2000 μ S	Typical
Amplification Factor	4600	Typical
Plate Resistance	2300000 ohm	Typical



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	200 mA	—
Typical plate voltage	250 V	—
Typical screen voltage	140 V	—
Typical grid voltage	-2 V	—
Typical plate current	3 mA	—
Typical screen current	0.55 mA	—
Transconductance	1850 μ S	—
Screen-grid amplification factor	38	—
Plate resistance	2.5 Mohm	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid input capacitance	4.5 pF	—
Plate capacitance	5.2 pF	—
Plate-grid capacitance maximum	0.04 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-heater capacitance maximum	0.002 pF	—

TUBE TINKER

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