



ELECTRONIC TUBE REFERENCE

EL34

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Classic high-power EL34 output pentode for substantial single-ended and push-pull audio amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Octal	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.5 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	15000 Ω
TRANSCONDUCTANCE	0.011 S
AMPLIFICATION FACTOR	11
MAXIMUM PLATE VOLTAGE	800 V
MAXIMUM SCREEN VOLTAGE	500 V
MAXIMUM PLATE DISSIPATION	25 W
MAXIMUM SCREEN DISSIPATION	8 W
MAXIMUM CATHODE CURRENT	150 mA
<i>Promoted ratings and characteristics are taken from the printed target-tube entry in the approved PDF.</i>	

Glass octal types used in the output stage of audio- frequency amplifiers. Maximum dimensions: over-all length, 4% inches; seated height, 3% inches; diameter, 1% inches. Tube requires octal socket. 8ET



SOURCE OPERATING CONDITIONS

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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	1.5 A	Nominal
Maximum Plate Voltage	800 V	—
Maximum Screen Voltage	500 V	—
Maximum Plate Dissipation	25 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11000 μ S	Typical



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1956 Amperex Hi Fi Brochure

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1956 AMPEREX HI FI BROCHURE

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	—
Screen Voltage	250 V	—
Plate Current	100 mA	—
Screen Current	14.9 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control Grid Voltage	-13.5 V	—
Amplification Factor Grid1-to-Grid2	11 ratio	—


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1958 Amperex Industrial

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1958 AMPEREX INDUSTRIAL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	800 V	PushPull
Screen voltage	400 V	PushPull
Grid voltage	-39 V	PushPull
Plate current	91 mA	OneTube PushPull
Screen current	19 mA	OneTube PushPull

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11300 μ S	—


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1959 Telefunken

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1959 TELEFUNKEN

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Screen-grid voltage	265 V	—
Plate current	100 mA	—
Screen-grid current	14.9 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA;SingleEnded
Screen-grid voltage	265 V	ClassA;SingleEnded



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195X Tesla

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195X TESLA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	1.5 A	Nominal
Maximum Plate Voltage	800 V	—
Maximum Screen Voltage	500 V	—
Maximum Plate Dissipation	25 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11000 μ S	Typical



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1963 Amperex Condensed

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1963 AMPEREX CONDENSED

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	800 V	AudioOutput;PushPull;TwoTubes
Screen voltage	400 V	AudioOutput;PushPull;TwoTubes
Control-grid voltage	-39 V	AudioOutput;PushPull;TwoTubes
Plate current per pair	182 mA	AudioOutput;PushPull;TwoTubes
Screen current per pair	38 mA	AudioOutput;PushPull;TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11300 μ S	Section1



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1963 Mullard

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1963 MULLARD

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current	100 mA	Pentode; Va=250V
Screen current	15 mA	Pentode; Va=250V
Triode transconductance	11500 μ S	TriodeConnection
Triode plate resistance	910 ohm	TriodeConnection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode amplification factor	10.5	TriodeConnection


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1963 Philips Electron Tubes Handbook V1a

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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	1.5 A	Published heater rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen voltage	250 V	ClassA
Grid bias	-14.5 V	ClassA
Plate current	70 mA	ClassA


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1967 Mullard Receiving Tubes for Maintenance

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1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	PentodeConnection
Screen-grid voltage	250 V	PentodeConnection
Plate current	100 mA	PentodeConnection
Screen-grid current	15 mA	PentodeConnection
Control-grid voltage	-12.2 V	PentodeConnection
Transconductance	11 mA/V	PentodeConnection



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1972 Philips Receiving Tubes

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CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	1.5 A	Published nominal value
Transconductance	12500 μ S	Published or referenced operating characteristic
Transconductance	12.5 mA/V	Published quick-reference value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	25 W	Published or referenced maximum rating
Audio output power	100 W	ClassB, published quick-reference value



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1975 RCA RC30

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1975 RCA RC30
Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero-Signal Grid-No	4 mA	Published value from supplied target entry
Plate Resistance (Approx.)	15000 ohms	Published value from supplied target entry
Transconductance	9200	Published value from supplied target entry
Load Resistance	4500 ohms	Published value from supplied target entry
Total Harmonic Distortion	6 per cent	Published value from supplied target entry

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum-Signal Grid-No	11 mA	Published value from supplied target entry



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1981 Russian Tubes Katsnelson and Larionov

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

1981 RUSSIAN TUBES KATSNELSON AND LARIONOV
Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal/basic-parameter heater condition.
Heater current	1500 mA	Published heater current.
Plate current	100 mA	Published basic-parameter operating point.
Screen current	14.9 mA	Published basic-parameter operating point.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11000 μ S	Published basic-parameter value; normalized to μ S.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	800 V	Published limiting operating value.
Maximum screen voltage	425 V	Published limiting operating value.


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1999 Philips E-Z

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1999 PHILIPS E-Z

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current I _a	100 mA	—
Transconductance S	12.5 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Output power, class B	100 W	ClassB
Heater voltage V _s	6.3 V	ClassB

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to all except grid No.1	8.4 pF	—
Grid No.1 to all except anode	15.2 pF	—


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199X JJ

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199X JJ
Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	250 V	—
Typical Screen Voltage	265 V	—
TypicalControlGridVoltage	-10 V	—
Typical Plate Current	100 mA	—
Typical Screen Current	14.9 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridCapacitance	15.5 pF	—
Plate Capacitance	10 pF	—



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199X Svetlana

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199X SVETLANA
Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC) 5.7 6.3	6.9 V	SourcePage1-2
Current	1.6 A	SourcePage1-2
Cathode-to-heater potential, max.	100 V	SourcePage1-2
base sleeve and heater <	16 pF	SourcePage1-2
base sleeve and heater <	0.6 pF	SourcePage1-2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid no.1 to plate <	1.1 pF	SourcePage1-2

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC plate voltage	800 V	SourcePage1-2


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2026 JJ Electronic

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2026 JJ ELECTRONIC

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Uf	6.3 V	Published value
If	1.5 A	Published value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ua	250 V	Published value
Ug3	0 V	Published value
Ug2	265 V	Published value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ia	100 mA	Published value
Ig2	14.9 mA	Published value


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2026 Mullard Rebrand

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2026 MULLARD REBRAND

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	1.35 A–1.65 A	Published min/max range

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