ELECTRONIC TUBE REFERENCE

E84L

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
PENTODE

Special-quality long-life power/output pentode designed for stable professional, industrial, or wideband amplifier service.

General characteristics

BASE DESIGNATION	Noval	**BASE PINS**	9
NOMINAL HEATER	6.3 V / 760 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Pentode	
PLATE RESISTANCE	40000 Ω
TRANSCONDUCTANCE	0.0113 S
AMPLIFICATION FACTOR	19
MAXIMUM PLATE VOLTAGE	450 V
MAXIMUM SCREEN VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	13.5 W
MAXIMUM SCREEN DISSIPATION	4.4 W
MAXIMUM GRID DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	75 mA
Audio/power output pentode.	

The Telefunken E84L is a rugged long-life output pentode with high transconductance, explicitly paired as E84L/7320.

SOURCE OPERATING CONDITIONS

1955 Lorenz

SOURCE PDF

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

1955 LORENZ

Section 1 · Pentode

CONSTRUCTION		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Long-life construction	**TRUE**	—
Ruggedized construction	**TRUE**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1959 Telefunken

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1959 TELEFUNKEN

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage	**250 V**	—
Screen Voltage	**250 V**	—
Plate Current	**48 mA**	—
Screen Current	**5.5 mA**	—
Transconductance	**11300 uS**	—
Plate Resistance	**40000 ohm**	—
Guaranteed Life	**10000 h**	Average of 100 tubes
Heater Cycling	**2000 cycles**	Minimum

SOURCE OPERATING CONDITIONS

1963 Siemens

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1963 SIEMENS

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Input capacitance	**10 pF**	—
Output capacitance	**6 pF**	—
Grid-to-plate capacitance	**0.5 pF**	Maximum
Triode-connected transconductance	**10.2 mA/V**	TriodeConnection
Triode-connected amplification factor	**18.5**	TriodeConnection
Triode-connected plate resistance	**1.8 kOhm**	TriodeConnection

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1999 Philips E-Z

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1999 PHILIPS E-Z

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Life test	**10000 h**	Published datasheet value
Heater voltage Vf	**6.3 V**	Published datasheet value
Heater current If	**760 mA**	Published datasheet value
Anode current Iy	**48 mA**	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mutual conductance S	**11.3 mA/V**	Published datasheet value
Output power, one tube Wo	**6 W**	Published datasheet value
Heater current It	**800 mA**	Published datasheet value
Cathode resistor Rk	**135 Q**	Published datasheet value
Grid No	**7 mA**	Published datasheet value
Cathode resistor Rk	**270 Q**	Published datasheet value
Anode current Ia	**34 mA**	Published datasheet value
Mutual conductance S	**10.2 mA/V**	Published datasheet value
and heater Vig =	**100 V**	Published datasheet value
electrodes R min	**100 MQ**	Published datasheet value
The tube is subjected during	**32 h**	Published datasheet value
during	**10000 h**	Published datasheet value
Anode voltage Va, max,	**600 V**	Published datasheet value
Va max	**450 V**	Published datasheet value
Anode dissipation Wy max	**13.5 W**	Published datasheet value
Grid No	**600 V**	Published datasheet value
Vg2 max	**450 V**	Published datasheet value
Continuously Wg2 max	**2.2 W**	Published datasheet value
by speech and music Wg2p max	**4.4 W**	Published datasheet value
Grid No	**0.5 W**	Published datasheet value
Grid No	**100 V**	Published datasheet value
Cathode current Ik max	**75 mA**	Published datasheet value
Heater voltage: The average heater voltage should be	**6.3 V**	Published datasheet value
Variations of the heater voltage exceeding the range of	**6 V**	Published datasheet value
Vg,	**250 V**	Published datasheet value
Load resistance Ra~	**4.5 kQ**	Published datasheet value
Anode current Ia	**50.5 mA**	Published datasheet value
Grid No	**11 mA**	Published datasheet value
Output power Wo	**6 W**	Published datasheet value
Anode voltage Va	**250 V**	Published datasheet value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode resistance Rk	**135 Q**	Published datasheet value
Anode current Ia	**49.2 mA**	Published datasheet value
Grid No	**11.6 mA**	Published datasheet value
Cathode resistance Rk	**210 Q**	Published datasheet value
Load resistance Ran~	**7 kQ**	Published datasheet value
Anode current Iy	**36 mA**	Published datasheet value
Grid No	**14.6 mA**	Published datasheet value
Output power Wo	**5.6 W**	Published datasheet value
Grid No	**210 V**	Published datasheet value
Cathode resistor Ry	**160 Q**	Published datasheet value
Input voltage Vi	**3.8 h**	Published datasheet value
Anode current Ia	**36.5 mA**	Published datasheet value
Grid No	**8 mA**	Published datasheet value
Output power Wy	**4.7 W**	Published datasheet value
Cathode resistor Ry	**130 Q**	Published datasheet value
Input voltage Vi	**109 V**	Published datasheet value
Anode current Iy	**6 mA**	Published datasheet value
Grid No	**1 mA**	Published datasheet value
Output power Wo	**17 W**	Published datasheet value
Grid No	**300 V**	Published datasheet value
Grid No	**14.7 V**	Published datasheet value
Load resistance Raa	**8 kQ**	Published datasheet value
Cathode resistor Rg	**270 Q**	Published datasheet value
Output power W,	**1.95 W**	Published datasheet value
Cathode resistor Ry	**270 Q**	Published datasheet value
Load resistance Raa o	**10 kQ**	Published datasheet value
Cutput power Wo	**5.2 W**	Published datasheet value
SEEEEEE d—	**4 V**	Published datasheet value
I, . Vga =	**250 V**	Published datasheet value

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