



ELECTRONIC TUBE REFERENCE

E236L

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Rugged long-life power pentode for high-current service including television horizontal-deflection output, combining substantial pulse capability with special-quality construction.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Octal	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.014 S
AMPLIFICATION FACTOR	5.6
MAXIMUM PLATE VOLTAGE	400 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	5.5 W
MAXIMUM CATHODE CURRENT	220 mA
Power pentode with horizontal-deflection pulse ratings.	

The Telefunken E236L is a rugged long-life power pentode designed for high-current service and television horizontal-deflection output operation.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1959 Telefunken

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

1959 TELEFUNKEN

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	—
Screen Voltage	100 V	—
Plate Current	100 mA	—
Transconductance	14000 μ S	—
Guaranteed Life	10000 h	Average of 100 tubes

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Plate Voltage	7000 V	HorizontalDeflection; PulseDuration<=18us



SOURCE OPERATING CONDITIONS

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1963 Siemens

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

1963 SIEMENS

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	100 V	PentodeConnection
Typical Screen Voltage	100 V	PentodeConnection
Typical Plate Current	100 mA	PentodeConnection

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage Vg	6.3 V	Heating
Heater current I	1.2 A	Heating
Anode current Iy	100 mA	Heating
Mutual conductance S	14 mA	Heating
Output power. Class B (2 tubes) W,	2 W	Heating
Heater voltage Vs	6.3 v	Characteristics
Heater current If	211.12 A–1.28 A	Characteristics
cathode and heater Ixs max	20 uA	Characteristics
Anode voltage Va, max	650 V	Limiting Values
Anode peak voltage +Vap max	7 kV	Limiting Values
Anode dissipation Wy max	15 W	Limiting Values
Anode + grid No	2 W	Limiting Values
Grid No.2 voltage Vg20 max	2 V	Limiting Values
Grid No.2 dissipation Wgz max	2 W	Limiting Values
Grid No.1 peak voltage –Vglp max	1 kv	Limiting Values
Grid No.1 resistor Rgl max	1 MΩ	Limiting Values
Cathode current Ix max	220 mA	Limiting Values
Cathode peak current Ikp max	1.2 A	Limiting Values
Cathode positive Viϕ (k pos) max	250 V	Limiting Values
Cathode negative Vit (k neg) max	200 V	Limiting Values

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage: The average heater value should be	6.3 V	Limiting Values
Variation of the heater voltage exceeding the range of	6 V	Limiting Values
Load resistance Raa ~	3 kΩ	Operating Characteristics
Anode current Ia	2 mA	Operating Characteristics
2 current Ig2	2 mA	Operating Characteristics
Maximum plate voltage	650 V	Promoted published datasheet value
Maximum screen voltage	650 V	Promoted published datasheet value
Maximum plate dissipation	15 W	Promoted published datasheet value
Maximum screen dissipation	5.5 W	Promoted published datasheet value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage Va	100 A	Characteristics
Grid No.2 voltage Vgz	2 v	Characteristics
Cathode resistor Rk	75 Ω	Characteristics
Anode current Iy	85–118 mA	Characteristics
Grid No.2 current Ig2	4–6.5 mA	Characteristics
Mutual conductance S	11.5–16.5 mA	Characteristics
Internal resistance Ry	5 kΩ	Characteristics
Cut-off voltage --Vgl	35 v	Characteristics
Anode current I	0.1 mA	Characteristics
Negative grid No.1 current - Ig	1 uA	Characteristics
Cut-off voltage -Vgl max	120 v	Characteristics
Grid No	2 v	Characteristics
Cathode resistor Rk	85 Ω	Characteristics
Internal resistance Ry	350 Ω	Characteristics
Plate resistance	5000 Ω	Promoted published datasheet value
Transconductance	14000 μS	Promoted published datasheet value
Amplification factor	1	Promoted published datasheet value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
cathode and heater Ca/gzgskf	9–11 pF	Capacitances
cathode and heater Cgl/gZgBkf	17.5–20.5 pF	Capacitances
Anode to grid No.1 Cagl max	1 pF	Capacitances

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