



ELECTRONIC TUBE REFERENCE

E55L

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 / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	20000 Ω
TRANSCONDUCTANCE	0.045 S
AMPLIFICATION FACTOR	30
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	2.5 W
<i>Special-quality shock- and vibration-resistant long-life wide-band output pentode for professional equipment.</i>	

Special-quality high-slope wideband output pentode for stable long-life industrial service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
Plate voltage characteristic	125 V	—
Screen voltage characteristic	125 V	—
Control-grid voltage	-3 V	—
Plate current	50 mA	—
Screen current	5.5 mA	—
Transconductance	45 mA/V	—
Plate resistance	20 kohm	—
Triode-connected plate voltage	125 V	—
Triode-connected plate current	55.5 mA	—
Triode-connected transconductance	50 mA/V	—
Triode-connected amplification factor	30	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate operating voltage	140 V	—
Screen operating voltage	140 V	—
Cathode resistor	270 ohm	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Shielded plate-grid capacitance max	0.12 pF	—
Shielded input capacitance	18 pF	—
Shielded output capacitance max	7.2 pF	—
Triode-connected plate-grid capacitance avg	6.2 pF	—
Triode-connected input capacitance avg	11.8 pF	—
Triode-connected output capacitance avg	10.5 pF	—



SOURCE OPERATING CONDITIONS

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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	Pentode
Plate current	50 mA	Pentode
Screen current	5.5 mA	Pentode
Plate voltage	125 V	TriodeConnection
Plate current	55.5 mA	TriodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	45000 uS	Pentode
Transconductance	50000 uS	TriodeConnection
Amplification factor	30	TriodeConnection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid capacitance	18 pF	Pentode
Plate capacitance	4 pF	Pentode



SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V3

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	600 mA	If = 600 mA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid capacitance	1 pF	Cg1 = 18 pF 18 pF
Cathode current	55.5 mA	Cg1(Ik=55.5 mA)= 28 pF 28 pF
Grid capacitance	1 pF	Cg1(Ik=55.5 mA)= 28 pF 28 pF
Plate capacitance	4 pF	Ca = 4 pF 6 pF
Grid-to-plate capacitance	0.11 pF	Cag1 = 0.11 pF 0.08 pF
Grid-to-plate capacitance	1 pF	Cag1 = 0.11 pF 0.08 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	Va 125V
Grid-3 voltage	0 V	Vg3 = 0 V
Plate current	50 mA	Ia = 50 mA
Transconductance	45 mA/V	S = 45 mA/V
Plate current	55.5 mA	Ia = 55.5 mA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	50 mA/V	S = 50 mA/V
Amplification factor	30	$\mu = 30$
Plate supply voltage	140 V	V _{ba} = 140V
Cathode resistor	270 ohm	R _k = 270Q
Plate voltage	-125 V	(mA/V) V _a -125V IQ
Transconductance	50 mA/V	60 S 50



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	6.3 V	Published datasheet value
Heater current	600 mA	Published datasheet value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current	50 mA	Published datasheet value
Anode current	52 mA	Published datasheet value
Anode current	55.5 mA	Published datasheet value
Anode voltage	125 V	Published datasheet value
Screen-grid voltage	125 V	Published datasheet value
Mutual conductance	45 mA/V	Published datasheet value
Mutual conductance	50 mA/V	Published datasheet value
Amplification factor	30	Published datasheet value
Internal resistance	20 kQ	Published datasheet value
Anode current	50 mA	Published datasheet value