

ELECTRONIC TUBE REFERENCE

7721

Voltage Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

High-transconductance long-life pentode for wide-band amplification, explicitly paired with D3A in manufacturer literature. It combines substantial gain-bandwidth capability with extended service life for professional broadband signal equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9EQ	BASE PINS	9
NOMINAL HEATER	6.3 V / 320 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9EQ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	K – Cathode	CONNECTED
PIN2	–	G1 – Control Grid	CONNECTED
PIN3	–	K – Cathode	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	–	–	IC
PIN7	–	P – Plate (Anode)	CONNECTED
PIN8	–	G3 – Suppressor Grid	CONNECTED
PIN8	–	IS – Internal Screen	CONNECTED
PIN9	–	G2 – Screen Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	120000 Ω
TRANSCONDUCTANCE	0.035 S
MAXIMUM PLATE VOLTAGE	220 V
MAXIMUM SCREEN VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	4.2 W
MAXIMUM SCREEN DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	30 mA
WARM-UP TIME	60 s
<i>Published maximum ratings and characteristic constants promoted; identical twin sections compressed when applicable.</i>	

The Telefunken 7721 is a high-transconductance long-life pentode for wide-band amplification, with the sheet explicitly pairing D3A and 7721.



SOURCE OPERATING CONDITIONS

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 Supply Voltage	190 V	—
Screen Supply Voltage	160 V	—
Plate Current	24 mA	—
Transconductance	35000 μ S	—
Plate Resistance	120000 ohm	—
Guaranteed Life	10000 h	Average of 100 tubes
Noise Figure	7 dB	100MHz
Approximate Gain-Bandwidth Figure	230 MHz	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 CBS Hytron

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

1960 CBS HYTRON

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	10 pF	—
Output capacitance	2 pF	—
Grid-to-plate capacitance	0.035 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak plate voltage	400 V	IntermittentOperation
Peak screen-grid voltage	400 V	IntermittentOperation
Plate supply voltage	190 V	ClassA
Screen-grid supply voltage	160 V	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	22 mA	—
Screen-grid current	6 mA	—
Equivalent noise resistance	50 0hm	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Siemens

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

1963 SIEMENS

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	345 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	35000 μ S	Nominal/Bogey


SOURCE DATA APPENDIX

1965 Ericsson Longlife

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

1965 ERICSSON LONGLIFE
Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	10 pF	—
Output capacitance	2 pF	—
Grid-to-plate capacitance	0.035 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak plate voltage	400 V	IntermittentOperation
Peak screen-grid voltage	400 V	IntermittentOperation
Plate supply voltage	190 V	ClassA
Screen-grid supply voltage	160 V	ClassA
Transconductance minimum	30000 uS	—
Transconductance maximum	40000 uS	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	22 mA	—
Screen-grid current	6 mA	—
Transconductance	35000 uS	—
Plate resistance	0.12 MOhm	—
Equivalent noise resistance	150 Ohm	—



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

196X LM Ericsson

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

196X LM ERICSSON

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	320 mA	—
Plate resistance	150 ohm	—
Transconductance	50000 uS	—
Amplification factor	2	—
Application	Broadband low-noise beam pentode	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	400 V	—
Maximum screen voltage	400 V	—
Maximum plate dissipation	4.5 W	—
Heater-cathode voltage	60 V	—