



ELECTRONIC TUBE REFERENCE

PCF82

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

VHF television frequency changer with high-slope oscillator triode and high-input-impedance pentode mixer.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	9.5 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.0085 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published values promoted where clearly readable; identical repeated sections compressed when applicable.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	400000 Ω
TRANSCONDUCTANCE	0.0052 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	110 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	25 mA
<i>Published ratings and characteristics promoted from the approved German source.</i>	

Triode-pentode VHF television frequency changer with high-slope oscillator triode and high-input-impedance pentode mixer.

SOURCE OPERATING CONDITIONS

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
Maximum Plate Voltage	300 V	—
Maximum Plate Dissipation	1.5 W	—
Maximum Cathode Current	20 mA	—

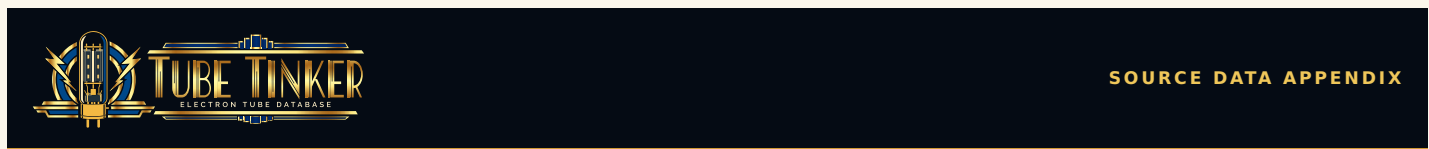
CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8500 μ S	Typical
Amplification Factor	55	Typical
Plate Resistance	18000 ohm	Typical

1953 RFT RUNDFUNK TECHNIK

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	300 V	—
Maximum Plate Dissipation	2.5 W	—
Maximum Screen Dissipation	0.5 W	—
Maximum Cathode Current	25 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5200 μ S	Typical
Plate Resistance	300000 ohm	Typical



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	VHF oscillator	TriodeSection

1958 BRIMAR RADIO VALVE NO 7

Section 2 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	VHF mixer	PentodeSection
Referenced Characteristics	Type ECF82/6U8	Source explicitly refers to ECF82/6U8 for further characteristics



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Tesla

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

195X TESLA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	9.5 V	Published nominal value or midpoint of published range
Heater current	300 mA	Published nominal value or midpoint of published range

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode input capacitance	5 pF	Published first-page value
Pentode output capacitance	2.6 pF	Published first-page value
Triode input capacitance	2.5 pF	Published first-page value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	9 V	—
Heater Current	300 mA	—
Maximum Intended Frequency	220 MHz	FrequencyChanger



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1973 Mazda Valves Binder 2

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

1973 MAZDA VALVES BINDER 2

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current Ih	3 A	—
Heater Voltage Vh	95 V	—
Maximum Anode Dissipation pa(max) 28	2.7 W	—
Maximum Anode Supply Voltage Va(b)max 550	550 V	—
Maximum Anode Voltage Va(max) 300	300 V	—
Maximum Positive D.C. Control Grid Voltage Vgl(max) 0	0 V	—
Maximum Cathode Current Ik(max) 20	20 mA	—
Heater Negative	220 V	—
Heater Positive	90 V	—
Cathode to Heater (each section) approximately ck-h	30 pF	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to Anode Pentode Cgl- ap 0	6 pF	—
Pentode Input Cin(p)	50 pF	—
Pentode Output Cout(p)	3.5 pF	—
Triode Grid to Triode Anode Cgt-at	18 pF	—
Triode Grid to Cathode Cgt_k	25 pF	—
Triode Anode to Cathode cat- k	10 pF	—
Anode Voltage Va 250	150 V	—
Screen Grid Voltage V82	110 V	—
Anode Current Ia 10	18 mA	—
Screen Grid Current I\$2	3.5 mA	—
Mutual Conductance gm 52	85 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control Grid Voltage for $I_a = 10 \mu A$ $V_{gl}(I_a=10\mu A)$ -10 –	12 V	—
Anode Voltage V_a 170 170	100 V	—
Anode Current I_a 5.5 66	7 mA	—

TUBE TINKER

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