



ELECTRONIC TUBE REFERENCE

ECF82

Voltage Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Triode-pentode for VHF oscillator and frequency-converter service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	400000 Ω
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	25 mA
Published maximum ratings/characteristics promoted from source.	

SECTION2 Triode	
PLATE RESISTANCE	18000 Ω
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	50
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published maximum ratings/characteristics promoted from source.</i>	

Combined triode and pentode intended for VHF oscillator and frequency-converter service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · 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

1953 RFT RUNDFUNK TECHNIK

Section 2 · 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



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · Pentode

Characteristic		
Parameter	Published Value	Condition / Note
ConversionServiceFrequency	200 MHz	BandsIAndII

1958 BRIMAR RADIO VALVE NO 7

Section 2 · Triode

Characteristic		
Parameter	Published Value	Condition / Note
Heater Voltage	6.3 V	—
Heater Current	450 mA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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195X Tesla

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

195X TESLA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Screen Voltage	250 V	—
Maximum Plate Dissipation	2.5 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7500 μ S	Typical

195X TESLA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Plate Dissipation	1.5 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5500 μ S	Typical
Amplification Factor	50	Typical



SOURCE DATA APPENDIX

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 · Pentode

Characteristic		
Parameter	Published Value	Condition / Note
MaximumFrequencyChangerFrequency	220 MHz	Television

1961 FERRANTI TECHNICAL HANDBOOK

Section 2 · Triode

Characteristic		
Parameter	Published Value	Condition / Note
Heater Voltage	6.3 V	—
Heater Current	450 mA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 2 · Triode

Characteristic		
Parameter	Published Value	Condition / Note
Heater/filament voltage	6.3 V	Published rating
Heater/filament current	450 mA	Published rating
Pentode transconductance	4000 μ S	PentodeSection
Triode amplification factor	40	TriodeSection

Other		
Parameter	Published Value	Condition / Note
Pentode plate voltage	300 V	PentodeSection
Pentode plate current	10 mA	PentodeSection
Pentode control-grid bias	-0.7 V	PentodeSection
Pentode screen current	3.5 mA	PentodeSection
Triode plate voltage	150 V	TriodeSection
Triode control-grid bias	-1 V	TriodeSection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode plate current	18 mA	TriodeSection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1968 Mazda Belvu

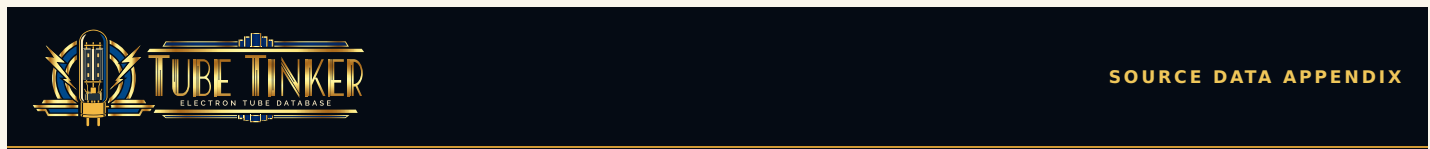
Published test conditions and operating points. Values on this page are preserved as reported by this source.

1968 MAZDA BELVU Section 2 · Triode

OTHER			
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE	
Tension filAMEnt ccresrsrsecsosocressomcrsessesenseenseceseseossececsaeceness VĖ	6.3 V	—	
Heater current msses If	450 mA	—	
Tension d'AnOdE srereseenesenessenmnns Vă 300	300 V	—	
Tension de grille n° Z uerserecrnvereseesceuees... VE	300 V	—	
Puissance appliquée à la gnlle n° 2 ... PgnN	0.5 W	—	
Tension entre filament et cathode VfK 90	90 V	—	
TeEnsion d'AnOdE cerrreresssesensemreesenensu... VA 150	250 V	—	
Screen-grid voltage ... Veg,	110 V	—	
Plate current Ia 18	10 mA	—	
Courant de grille n° 2 Ig2	3.5 mA	—	
envacorrenerase aneonesmeenesecueuse SS 8,5	5.2 mA	—	
RÉSISTANCE INTErNE cercencsesaemncsenssseeuces P 5	400 kΩ	—	
=10 ;LA) -Vgbl -12	-10 V	—	

CHARACTERISTIC			
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE	
Capacitance grille/anode Ce/a 1,8	1.8 pF	InterelectrodeCapacitance	
Capacitance d'entrée . Ce 2,5	2.5 pF	InterelectrodeCapacitance	

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacitance de soîitie Cs 1,0	0.4 pF	InterelectrodeCapacitance
Capacitance grille n° 1/anode ... Cg,/a 0,006	0.01 pF	InterelectrodeCapacitance
Capacitance d'entrée Ce 5	5 pF	InterelectrodeCapacitance
Capacitance de sortie CS 3,5	2.6 pF	InterelectrodeCapacitance



SOURCE OPERATING CONDITIONS

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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 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage Vh	63 V	—
Heater Current Ih	45 A	—