

ELECTRONIC TUBE REFERENCE

7C5

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Loctal beam-power audio-output tube providing several watts single-ended and substantially more in push-pull service, electrically comparable to familiar 6V6-class output tubes.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6AA	BASE PINS	8
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

6AA - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	–	H – Heater	CONNECTED • verified
PIN2 – Pin 2	A	P – Plate (Anode)	CONNECTED • verified
PIN3 – Pin 3	A	G2 – Screen Grid	CONNECTED • verified
PIN4 – Pin 4	–	–	NC • verified
PIN5 – Pin 5	–	–	NC • verified
PIN6 – Pin 6	A	G1 – Control Grid	CONNECTED • verified
PIN7 – Pin 7	A	BP – Beam-Forming Plate	CONNECTED • verified
PIN7 – Pin 7	A	K – Cathode	CONNECTED • verified

TERMINAL	SECTION	ELEMENT	STATUS
PIN8 – Pin 8	–	H – Heater	CONNECTED · verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	52000 Ω
TRANSCONDUCTANCE	0.0041 S
MAXIMUM PLATE VOLTAGE	315 V
MAXIMUM SCREEN VOLTAGE	285 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	2 W
<i>Published promoted fields populated by semantic heading; identical repeated physical sections compressed.</i>	

The 7C5 is a beam power amplifier designed for receiver output stages, providing useful audio power at comparatively low supply voltages.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	5.5 W	ClassA;OneTube



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	7.5 pF	G1 to all except anode
Output Capacitance	5.25 pF	Anode to all except G1
Control Grid to Anode Capacitance	0.45 pF	—
Heater to Cathode Capacitance	4.8 pF	—



1950 Sylvania

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

1950 SYLVANIA

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	7 V	Nominal
HeaterCurrentNominal	480 mA	Nominal
Plate Voltage	250 V	ClassA
Screen Voltage	250 V	ClassA
Power Output	4.5 W	ClassA;OneTube;PlateVoltage=250V
Power Output	10 W	ClassAB;PushPull;TwoTubes;PlateVoltage=250V



SOURCE DATA APPENDIX

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 · Beam Power

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Audio output	—



SOURCE DATA APPENDIX

195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	315 V	ClassA
Typical screen voltage	225 V	ClassA
Typical grid voltage	-13 V	ClassA
Typical plate current	34 mA	ClassA
Typical screen current	2.2 mA	ClassA
Load resistance	8500 Ohm	ClassA
Power output	5.5 W	ClassA
Typical plate voltage	250 V	ClassA
Typical screen voltage	250 V	ClassA
Typical grid voltage	-12.5 V	ClassA
Typical plate current	45 mA	ClassA
Typical screen current	4.5 mA	ClassA
Load resistance	5000 Ohm	ClassA
Power output	4.5 W	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	77000 Ohm	315VPlate
Transconductance	3750 uS	315VPlate
Plate resistance	52000 Ohm	250VPlate
Transconductance	4100 uS	250VPlate



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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA; OneTube
Screen Voltage	250 V	ClassA; OneTube
Plate Current	45 mA	ClassA; OneTube
Load Resistance	5000 ohm	ClassA; OneTube
Power Output	4.5 W	ClassA; OneTube



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	5.5 W	ClassA1
Power Output	14 W	ClassAB;PushPull;TwoTubes



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_voltage	250 V	ClassA,OneTube
Screen_voltage	250 V	ClassA,OneTube
Grid_1_voltage	-12.5 V	ClassA,OneTube
Load_resistance	5000 ohm	ClassA,OneTube
Power_output	4.5 W	ClassA,OneTube
Total_harmonic_distortion	8 %	ClassA,OneTube
Maximum_heater_cathode_voltage	90 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero_signal_plate_current	45 mA	ClassA,OneTube
Maximum_signal_plate_current	47 mA	ClassA,OneTube
Zero_signal_screen_current	4.5 mA	ClassA,OneTube

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	8 pF	—
Output capacitance	6.5 pF	—

TUBE TINKER

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