

ELECTRONIC TUBE REFERENCE

6CM6

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power amplifier designed for general-purpose audio output and television vertical-deflection amplifier service, combining useful power output with sweep-current capability.

GENERAL CHARACTERISTICS

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

9CK - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	50000 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
MAXIMUM CATHODE CURRENT	40 mA
<i>Published promoted fields populated from printed headings.</i>	

Beam power amplifier for general-purpose audio output or television vertical-deflection amplifier service.



SOURCE OPERATING CONDITIONS

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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
Peak positive plate voltage	2000 V	VerticalDeflection



SOURCE OPERATING CONDITIONS

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195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA;PentodeConnection
Screen-grid voltage	250 V	ClassA;PentodeConnection
Grid voltage	-12.5 V	ClassA;PentodeConnection
Plate current	45 mA	ClassA;PentodeConnection
Screen-grid current	4.5 mA	ClassA;PentodeConnection
Load resistance	5000 ohm	ClassA;PentodeConnection
Power output	4.5 W	ClassA;PentodeConnection
Maximum positive pulse plate voltage	1000 V	VerticalDeflection
Maximum plate dissipation	3 W	VerticalDeflection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum screen dissipation	1.5 W	VerticalDeflection;PentodeConnection
Maximum DC cathode current	40 mA	VerticalDeflection


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1961 Tung Sol

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1961 TUNG SOL

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PeakPositivePlateVoltage	2000 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	4100 uS	Typical


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 2 of 4

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1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Beam Power

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.7 pF	—
Input capacitance	8 pF	—
Output capacitance	8.5 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive plate voltage	2000 V	VerticalDeflection
Peak cathode current	120 mA	VerticalDeflection
Plate voltage	250 V	ClassA;SingleTube
Grid #2 voltage	250 V	ClassA;SingleTube
Grid #1 voltage	-12.5 V	ClassA;SingleTube
Zero-signal plate current	45 mA	ClassA;SingleTube
Zero-signal grid #2 current	4.5 mA	ClassA;SingleTube
Load resistance	5000 ohm	ClassA;SingleTube
Power output	4.5 W	ClassA;SingleTube

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode-connected transconductance	5000 uS	TriodeConnection;Eb=250V
Triode-connected amplification factor	9.8	TriodeConnection;Eb=250V
Triode-connected plate resistance	1960 ohm	TriodeConnection;Eb=250V



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	315 V	—
PLATE DISSIPATION	12 W	—
Heater negative with respect to cathode	200 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater positive with respect to cathode	200 V	—
Plate Voltage	180 V	Published table column 1 of 3
Plate Voltage	250 V	Published table column 2 of 3
Plate Voltage	315 V	Published table column 3 of 3
Peak AF Grid-No.1 Voltage	8.5 V	Published table column 1 of 3
Peak AF Grid-No.1 Voltage	12.5 V	Published table column 2 of 3
Peak AF Grid-No.1 Voltage	13 V	Published table column 3 of 3
Zero-Signal Plate Current	29 mA	Published table column 1 of 3
Zero-Signal Plate Current	45 mA	Published table column 2 of 3
Zero-Signal Plate Current	34 mA	Published table column 3 of 3
Max.-Signal Plate Current	30 mA	Published table column 1 of 3
Max.-Signal Plate Current	47 mA	Published table column 2 of 3
Max.-Signal Plate Current	35 mA	Published table column 3 of 3
Zero	3 mA	Published table column 1 of 3
Zero	4.5 mA	Published table column 2 of 3
Zero	2.2 mA	Published table column 3 of 3
Plate Resistance (Approx)	50000 Ω	Published table column 1 of 3
Plate Resistance (Approx)	50000 Ω	Published table column 2 of 3
Plate Resistance (Approx)	80000 Ω	Published table column 3 of 3
Transconductance	3700 μS	Published table column 1 of 3
Transconductance	4100 μS	Published table column 2 of 3
Transconductance	3750 μS	Published table column 3 of 3
Load Resistance	5500 Ω	Published table column 1 of 3
Load Resistance	5000 Ω	Published table column 2 of 3
Load Resistance	8500 Ω	Published table column 3 of 3
Max.-Signal Power Output	2 W	Published table column 1 of 3
Max.-Signal Power Output	4.5 W	Published table column 2 of 3
Max.-Signal Power Output	5.5 W	Published table column 3 of 3
For fixed-bias operation	0 MΩ	Published table column 1 of 2
For fixed-bias operation	1 MΩ	Published table column 2 of 2
For cathode-bias operation	0.5 MΩ	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC PLATE VOLTAGE	315 V	—
(Absolute maximum)	2000 V	—
GRID) VOLTAGE	250 V	—
Peak	120 mA	—
DC	40 mA	—
PLATE DISSIPATION	8 W	—
For cathode-bias operation	2.2 MΩ	—
PLATE DISSIPATION	9 W	—
Heater ositive with respect to cathode	200 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	—
Plate Resistance (Approx)	1960 Ω	—
Transconductance	5000 μS	—
Plate Current	49.5 mA	—
plate ma. . =	0.5 V	Published table column 1 of 2
plate ma. . =	-37 V	Published table column 2 of 2
For cathode-bias operation	2.2 MΩ	Published table column 1 of 2
For cathode-bias operation	5 MΩ	Published table column 2 of 2
The do component must not exceed	100 V	—

TUBE TINKER

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