



ELECTRONIC TUBE REFERENCE

6HG8

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Medium-mu triode plus frame-grid sharp-cutoff pentode used as a combined oscillator/mixer and television IF/video amplifier.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9MP	BASE PINS	9
NOMINAL HEATER	6.3 V / 340 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9MP - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.007 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	16 mA
<i>Published typical operating conditions, UHF/deflection ratings, and descriptive application reviewed.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	150000 Ω
TRANSCONDUCTANCE	0.01 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	18 mA
<i>Published typical operating conditions, UHF/deflection ratings, and descriptive application reviewed.</i>	

Medium-mu triode plus frame-grid sharp-cutoff pentode used as combined oscillator/mixer and television IF/video amplifier.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater rating
Heater current	340 mA	Published heater rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode plate voltage	100 V	TriodeSection Oscillator
Triode control-grid bias	-3 V	TriodeSection Oscillator
Triode plate current	14 mA	TriodeSection Oscillator

1963 AMPEREX CONDENSED

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode plate voltage	170 V	PentodeSection Mixer
Pentode screen voltage	150 V	PentodeSection Mixer
Pentode control-grid bias	-1.5 V	PentodeSection Mixer
Pentode plate current	10 mA	PentodeSection Mixer
Pentode screen current	3.3 mA	PentodeSection Mixer

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode amplification factor	60	PentodeSection Mixer
Pentode plate resistance	350000 ohm	PentodeSection Mixer
Pentode transconductance	12000 μ S	PentodeSection Mixer

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For fixed-bias operation 0.5	0.25 MΩ	Published in approved ECF86 target datasheet entry; Section1
For cathode-bias operation 1	1 MΩ	Published in approved ECF86 target datasheet entry; Section1
Heater Voltage (ac/dc) 5.3 6.3	7.2 V	Published in approved ECF86 target datasheet entry; Section1
Heater Current	300 mA	Published in approved ECF86 target datasheet entry; Section1
Plate Voltage 125	250 V	Published in approved ECF86 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Voltage	150 V	Published in approved ECF86 target datasheet entry; Section1
Plate Dissipation 1.5	2 W	Published in approved ECF86 target datasheet entry; Section1
Grid-No.2 Input	0.5 W	Published in approved ECF86 target datasheet entry; Section1
Plate Voltage 100	170 V	Published in approved ECF86 target datasheet entry; Section1
Grid-No.2 Voltage	160 V	Published in approved ECF86 target datasheet entry; Section1
Voltage -3	-1.2 V	Published in approved ECF86 target datasheet entry; Section1
Transconductance 5500	12000 μS	Published in approved ECF86 target datasheet entry; Section1
Plate Current 14	10 mA	Published in approved ECF86 target datasheet entry; Section1
Grid-No.2 Current	3.3 mA	Published in approved ECF86 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For fixed-bias operation	0.25 MΩ	Published in approved ECF86 target datasheet entry; Section1
For cathode-bias operation 0.5	0.5 MΩ	Published in approved ECF86 target datasheet entry; Section1
amperes, 0.6; warm-up time (average),	11 seconds	Published in approved ECF86 target datasheet entry; Section1
Plate Voltage 330	330 V	Published in approved ECF86 target datasheet entry; Section1
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	Published in approved ECF86 target datasheet entry; Section1
0	0 V	Published in approved ECF86 target datasheet entry; Section1
Plate Dissipation 2.5	2.5 W	Published in approved ECF86 target datasheet entry; Section1
For grid-No.2 voltages up to	165 V	Published in approved ECF86 target datasheet entry; Section1
For grid-No.2 voltages between 165 and	330 V	Published in approved ECF86 target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	0.35 MΩ	Published in approved ECF86 target datasheet entry; Section1
Plate Voltage 125	125 V	Published in approved ECF86 target datasheet entry; Section1
Grid-No.2 Voltage	125 V	Published in approved ECF86 target datasheet entry; Section1
Grid-No.1 Voltage 1 –	-1 V	Published in approved ECF86 target datasheet entry; Section1
Plate Resistance (Approx.) 5000	150000 Ω	Published in approved ECF86 target datasheet entry; Section1
Transconductance 7000	10000 μS	Published in approved ECF86 target datasheet entry; Section1
Plate Current 12.5	12 mA	Published in approved ECF86 target datasheet entry; Section1
20 iiA –	-7 V	Published in approved ECF86 target datasheet entry; Section1

1975 RCA RC30

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For fixed-bias operation 0.5	0.25 MΩ	Published in approved ECF86 target datasheet entry; Section2
For cathode-bias operation 1	1 MΩ	Published in approved ECF86 target datasheet entry; Section2
Heater Voltage (ac/dc) 5.3 6.3	7.2 V	Published in approved ECF86 target datasheet entry; Section2
Heater Current	300 mA	Published in approved ECF86 target datasheet entry; Section2
Plate Voltage 125	250 V	Published in approved ECF86 target datasheet entry; Section2
Grid-No.2 (Screen-Grid) Voltage	150 V	Published in approved ECF86 target datasheet entry; Section2
Plate Dissipation 1.5	2 W	Published in approved ECF86 target datasheet entry; Section2
Grid-No.2 Input	0.5 W	Published in approved ECF86 target datasheet entry; Section2
Plate Voltage 100	170 V	Published in approved ECF86 target datasheet entry; Section2
Grid-No.2 Voltage	160 V	Published in approved ECF86 target datasheet entry; Section2
Voltage -3	-1.2 V	Published in approved ECF86 target datasheet entry; Section2
Transconductance 5500	12000 μS	Published in approved ECF86 target datasheet entry; Section2
Plate Current 14	10 mA	Published in approved ECF86 target datasheet entry; Section2
Grid-No.2 Current	3.3 mA	Published in approved ECF86 target datasheet entry; Section2
For fixed-bias operation	0.25 MΩ	Published in approved ECF86 target datasheet entry; Section2
For cathode-bias operation 0.5	0.5 MΩ	Published in approved ECF86 target datasheet entry; Section2
amperes, 0.6; warm-up time (average),	11 seconds	Published in approved ECF86 target datasheet entry; Section2
Plate Voltage 330	330 V	Published in approved ECF86 target datasheet entry; Section2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 (Screen-Grid) Supply Voltage	330 V	Published in approved ECF86 target datasheet entry; Section2
0	0 V	Published in approved ECF86 target datasheet entry; Section2
Plate Dissipation 2.5	2.5 W	Published in approved ECF86 target datasheet entry; Section2
For grid-No.2 voltages up to	165 V	Published in approved ECF86 target datasheet entry; Section2
For grid-No.2 voltages between 165 and	330 V	Published in approved ECF86 target datasheet entry; Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	0.35 MΩ	Published in approved ECF86 target datasheet entry; Section2
Plate Voltage 125	125 V	Published in approved ECF86 target datasheet entry; Section2
Grid-No.2 Voltage	125 V	Published in approved ECF86 target datasheet entry; Section2
Grid-No.1 Voltage 1 –	-1 V	Published in approved ECF86 target datasheet entry; Section2
Plate Resistance (Approx.) 5000	150000 Ω	Published in approved ECF86 target datasheet entry; Section2
Transconductance 7000	10000 μS	Published in approved ECF86 target datasheet entry; Section2
Plate Current 12.5	12 mA	Published in approved ECF86 target datasheet entry; Section2
20 iiA –	-7 V	Published in approved ECF86 target datasheet entry; Section2

TUBE TINKER

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and their source documents.

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