

ELECTRONIC TUBE REFERENCE

5GJ7

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Combined triode-pentode used as an oscillator and mixer or frequency converter in television or VHF communications receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9QA	BASE PINS	9
NOMINAL HEATER	5.6 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9QA - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5400 Ω
TRANSCONDUCTANCE	0.011 S
AMPLIFICATION FACTOR	78
MAXIMUM PLATE VOLTAGE	140 V
MAXIMUM PLATE DISSIPATION	1.8 W
MAXIMUM CATHODE CURRENT	22 mA
<i>Ampliframe triode-pentode for television oscillator-mixer applications with controlled warm-up.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	350000 Ω
TRANSCONDUCTANCE	0.011 S
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM SCREEN VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	2.4 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Ampliframe triode-pentode for television oscillator-mixer applications with controlled warm-up.</i>	

Miniature types used as combined oscillator and mixer tubes in color and black-and-white television receivers utilizing an intermediate frequency in the order of K,G 3p ,IS 40 MHZ. Outlines section, 6J; requires miniature 9- 9QA contact socket. Types 4GJ7/XCF801, 5GJ7/LCF801, and 8GJ7/PCF801 are identical with type 6GJ7/ECF801 except for heater ratings. 4GJ7/ 5GJ7/ 6GJ7/ 8GJ7/

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode plate voltage	100 V	TriodeSection; OscillatorMixer
Triode grid voltage	-3 V	TriodeSection; OscillatorMixer
Triode plate current	15 mA	TriodeSection; OscillatorMixer

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode amplification factor	20	TriodeSection

1963 AMPEREX CONDENSED

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode plate voltage	170 V	PentodeSection
Pentode screen voltage	120 V	PentodeSection
Pentode grid voltage	-1.2 V	PentodeSection
Pentode plate current	10 mA	PentodeSection
Pentode screen current	3 mA	PentodeSection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode transconductance	2350 μ S	PentodeSection

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) XCF8	1	Published value from supplied target entry
Heater Current	8 volts	Published value from supplied target entry
Plate-Supply Voltage	600 volts	Published value from supplied target entry
DC Plate Voltage	275 volts	Published value from supplied target entry
Grid-No	600 volts	Published value from supplied target entry
DC Grid-No	275 volts	Published value from supplied target entry
DC Grid-No.1 (Control-Grid) Voltage	-50 volts	Published value from supplied target entry
Cathode Current	20 mA	Published value from supplied target entry
Plate Dissipation	2.4 watts	Published value from supplied target entry
Grid-No	0.55 watt	Published value from supplied target entry
DC Plate Voltage	170 volts	Published value from supplied target entry
DC Grid-No	120 volts	Published value from supplied target entry
DC Grid-No.1 Voltage	-1.2 volts	Published value from supplied target entry
Amplification Factor	20	Published value from supplied target entry
Plate Resistance (Approx.)	0.35 megohm	Published value from supplied target entry
Transconductance	11000	Published value from supplied target entry
Plate Current	10 mA	Published value from supplied target entry
Grid-No	3 mA	Published value from supplied target entry
voltage to	100 volts	Published value from supplied target entry
2 volts, screen-grid dissipation is limited	2 volts	Published value from supplied target entry
Heater Warm-up Time (Average)	11 seconds	Published value from supplied target entry
Average Cathode Current	22 mA	Published value from supplied target entry
Plate Dissipation	2.5 watts	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	135 volts	Published value from supplied target entry
Grid Voltage	-1 volts	Published value from supplied target entry
Amplification Factor	78	Published value from supplied target entry
Plate Resistance (Approx.)	5400 ohms	Published value from supplied target entry
Plate Current	11.5 mA	Published value from supplied target entry
Input Resistance*	275 ohms	Published value from supplied target entry
Grid Voltage (Approx.) for transconductance of	150	Published value from supplied target entry
Grid Voltage (Approx.) for transconductance of	-2.5 volts	Published value from supplied target entry

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage* $\pm$	110 volts	Published value from supplied target entry
Grid-No.1 Voltage for grid-No.1 current of	1.3 volts	Published value from supplied target entry
2 volts, maximum screen-grid dissipation	2 volts	Published value from supplied target entry
Peak Heater-Cathode Voltage $\pm$	100 volts	Published value from supplied target entry

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	0.62 pF	Published value from supplied target entry
Grid to Cathode, Heater, and Internal Shield	5 pF	Published value from supplied target entry
Plate to Cathode, Heater, and Internal Shield	3.5 pF	Published value from supplied target entry
Heater to Cathode	2.6 pF	Published value from supplied target entry
Input Capacitance*	11.2 pF	Published value from supplied target entry

TUBE TINKER

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