



ELECTRONIC TUBE REFERENCE

6LJ8

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Combined triode-pentode for oscillator, mixer, frequency-converter, RF, or IF service in television, communications, or mobile receivers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9GF	BASE PINS	9
NOMINAL HEATER	6.3 V / 400 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9GF - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	125000 Ω
TRANSCONDUCTANCE	0.013 S
MAXIMUM PLATE VOLTAGE	280 V
MAXIMUM SCREEN VOLTAGE	280 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published ratings/characteristics promoted from supplied source; additional conditions retained in parameter table.</i>	

SECTION2 Triode	
PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.008 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	280 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published ratings/characteristics promoted from supplied source; additional conditions retained in parameter table.</i>	

Medium-mu triode and sharp-cutoff pentode used as a combined oscillator and mixer in VHF television receivers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	—
Screen Voltage	—	—
Grid Voltage	0 V	—
Plate Current	—	—
Screen Current	3.5 mA	—
Plate Resistance	125000 ohm	—
Transconductance	13000 uS	—
Grid To Plate Capacitance	0.02 pF	—
Input Capacitance	6 pF	—
Output Capacitance	3.5 pF	—
Application	VHF mixer	—

1964 RMA EIA

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	400 mA	—
Plate Voltage	125 V	—
Grid Voltage	0 V	—
Plate Current	—	—
Amplification Factor	40	—
Plate Resistance	5000 ohm	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8000 μ S	—
Grid To Plate Capacitance	2 pF	—
Input Capacitance	3.5 pF	—
Output Capacitance	2 pF	—
Application	VHF oscillator	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	280 V	—
Maximum Screen Voltage	280 V	—
Maximum Plate Dissipation	2 W	—
Maximum Screen Dissipation	0.5 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	125000 ohm	—
Transconductance	13000 μ S	—
Interelectrode Capacitances Published	true	—

1968 GENERAL ELECTRIC CO

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	280 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Dissipation	2 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	5000 ohm	—
Transconductance	8000 uS	—
Amplification Factor	40	—
Interelectrode Capacitances Published	true	—



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	ClassA
Screen Voltage	125 V	ClassA
Cathode-Bias Resistor	33 ohm	ClassA
Plate Current	12 mA	ClassA
Screen Current	3.5 mA	ClassA
Control Grid Cutoff Approximation	-4 V	ClassA

1975 RCA RC30

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	Nominal
Heater Current	400 mA	Nominal

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	ClassA
Cathode-Bias Resistor	68 ohm	ClassA
Plate Current	13 mA	ClassA
Control Grid Cutoff Approximation	-6.5 V	ClassA
Peak Heater-Cathode Voltage	200 V	—
Average Heater-Cathode Voltage	100 V	—

TUBE TINKER

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