

ELECTRONIC TUBE REFERENCE

6M11

Voltage Dual Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

PENTODE-TRIODE-TRIODE

Television Duodecar whose triodes serve sync-separator and AGC-amplifier circuits while the pentode provides intermediate-frequency amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12CA	BASE PINS	12
NOMINAL HEATER	6.3 V / 770 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

12CA - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	C	G1 – Control Grid	CONNECTED
PIN3	C	G2 – Screen Grid	CONNECTED
PIN4	B	K – Cathode	CONNECTED
PIN5	B	G1 – Control Grid	CONNECTED
PIN6	B	P – Plate (Anode)	CONNECTED
PIN7	A	P – Plate (Anode)	CONNECTED
PIN8	A	G1 – Control Grid	CONNECTED
PIN9	A	K – Cathode	CONNECTED
PIN10	C	G3 – Suppressor Grid	CONNECTED
PIN10	C	K – Cathode	CONNECTED
PIN10	–	IS – Internal Screen	CONNECTED
PIN11	C	P – Plate (Anode)	CONNECTED

TERMINAL	SECTION	ELEMENT	STATUS
PIN12	—	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Pentode		
PLATE RESISTANCE		200000 Ω
TRANSCONDUCTANCE		0.013 S
MAXIMUM PLATE VOLTAGE		330 V
MAXIMUM SCREEN VOLTAGE		330 V
MAXIMUM PLATE DISSIPATION		3.1 W
MAXIMUM SCREEN DISSIPATION		0.65 W
<i>Full supplied entry reviewed for ratings, characteristics, operating data, and capacitances.</i>		

SECTION2 Triode		
PLATE RESISTANCE		10000 Ω
TRANSCONDUCTANCE		0.008 S
AMPLIFICATION FACTOR		58
MAXIMUM PLATE VOLTAGE		330 V
MAXIMUM SCREEN VOLTAGE		125 V
MAXIMUM PLATE DISSIPATION		2.25 W
<i>Full supplied entry reviewed for ratings, characteristics, operating data, and capacitances.</i>		

SECTION3 Triode		
PLATE RESISTANCE		10000 Ω
TRANSCONDUCTANCE		0.008 S
AMPLIFICATION FACTOR		58
MAXIMUM PLATE VOLTAGE		330 V
MAXIMUM PLATE DISSIPATION		2.25 W

Duodecar type used in television receiver applications. The triode units are used in sync-separator and age- amplifier circuits; the pentode unit is used in if -ampli- fier circuits. Outlines section, 8B; requires duodecar 12-contact socket.



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	330 V	—
Maximum Screen Voltage	330 V	—
Maximum Plate Dissipation	3.1 W	—
Maximum Screen Dissipation	0.65 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	200000 ohm	—
Transconductance	13000 uS	—
Interelectrode Capacitances Published	true	—

1968 GENERAL ELECTRIC CO

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Plate Dissipation	2.25 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	10000 ohm	—
Transconductance	8000 uS	—
Amplification Factor	58	—
Interelectrode Capacitances Published	true	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Plate Dissipation	2.25 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	10000 ohm	—
Transconductance	8000 uS	—
Amplification Factor	58	—
Interelectrode Capacitances Published	true	—



SOURCE DATA APPENDIX

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 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc)	6.3	Published value from supplied target entry
Heater Current	0.77 ampere	Published value from supplied target entry
Plate Voltage	330 volts	Published value from supplied target entry
Grid-No	330 volts	Published value from supplied target entry
Grid-No	2	Published value from supplied target entry
Plate Dissipation	3.1 watts	Published value from supplied target entry
For voltages up to	0.65 volts	Published value from supplied target entry
For voltages between	300 volts	Published value from supplied target entry
Plate Supply Voltage	125 volts	Published value from supplied target entry
Grid-No	125 volts	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification Factor	58	Published value from supplied target entry
Plate Resistance (Approx.)	200000 ohms	Published value from supplied target entry
Transconductance	13000	Published value from supplied target entry
Plate Current	11 mA	Published value from supplied target entry
Grid-No	3.4 mA	Published value from supplied target entry
Heater Voltage (ac/dc)	6.3 volts	Published value from supplied target entry
Heater Current	0.4 ampere	Published value from supplied target entry
Heater Warm-up Time	11 seconds	Published value from supplied target entry
Plate Voltage	280 volts	Published value from supplied target entry
Grid-No	280 volts	Published value from supplied target entry
Grid-No	300 volts	Published value from supplied target entry
Grid-No	300	Published value from supplied target entry
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0 volt	Published value from supplied target entry
Plate Dissipation	2 watts	Published value from supplied target entry
Cathode Current	20 mA	Published value from supplied target entry
Grid-No	0.5 watt	Published value from supplied target entry
Plate Voltage	125 volts	Published value from supplied target entry
Grid-No.1 Voltage	0 volt	Published value from supplied target entry
Plate Current	8 mA	Published value from supplied target entry
Grid-No	2 mA	Published value from supplied target entry
Transconductance	12000	Published value from supplied target entry
Amplification Factor	40	Published value from supplied target entry
Plate Resistance (Approx.)	125000 ohms	Published value from supplied target entry
Grid-No.1 Voltage for plate current of	5 volts	Published value from supplied target entry
Grid-No.1 Voltage for plate current of	3 volts	Published value from supplied target entry

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	1.8 PF	Published value from supplied target entry
Plate to Cathode, Grid No	2.8 pF	Published value from supplied target entry