



ELECTRONIC TUBE REFERENCE

6FY7

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Dual triode intended for television vertical-deflection service, combining oscillator/driver and power-output functions where applicable. Manufacturer data emphasize vertical-sweep operation, pulse-voltage capability, and the stronger section's current and dissipation requirements.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12E0	BASE PINS	12
NOMINAL HEATER	6.3 V / 1.05 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

12E0 - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN3	B	G1 – Control Grid	CONNECTED
PIN5	B	P – Plate (Anode)	CONNECTED
PIN7	B	K – Cathode	CONNECTED
PIN8	–	–	IC
PIN9	A	K – Cathode	CONNECTED
PIN10	A	G1 – Control Grid	CONNECTED
PIN11	A	P – Plate (Anode)	CONNECTED
PIN12	–	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	40500 Ω
TRANSCONDUCTANCE	0.0016 S
AMPLIFICATION FACTOR	65
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Oscillator section.</i>	

SECTION2 Triode	
PLATE RESISTANCE	920 Ω
TRANSCONDUCTANCE	0.0065 S
AMPLIFICATION FACTOR	6
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	7 W
MAXIMUM CATHODE CURRENT	50 mA
<i>Vertical-deflection amplifier section; 2000 V pulse plate rating preserved as parameter.</i>	

Dissimilar dual triode used as a combined vertical-deflection oscillator and vertical-deflection amplifier in television receivers.



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Voltage	250 V	Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Current	1.4 mA	Section1

1968 GENERAL ELECTRIC CO

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	2000 V	Section2
Typical Plate Voltage	150 V	Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Plate Current	35 mA	Section2



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater voltage tolerance	0.6 V	±
Heater current	1.05 A	HeaterVoltage=6.3V
Peak heater-cathode voltage, heater negative	200 V	Section1
Peak heater-cathode voltage, heater positive	200 V	Section1
Heater-cathode positive DC component maximum	100 V	Section1
Maximum DC plate voltage	330 V	VerticalDeflectionOscillator
Peak negative-pulse grid voltage	400 V	VerticalDeflectionOscillator
Peak cathode current	70 mA	VerticalDeflectionOscillator
Average cathode current	20 mA	VerticalDeflectionOscillator
Maximum plate dissipation	1 W	VerticalDeflectionOscillator
Maximum grid-circuit resistance	2.2 MΩ	VerticalDeflectionOscillator

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	4.4 pF	Section1
Input capacitance	2.2 pF	Section1
Output capacitance	0.4 pF	Section1

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA1
Grid voltage	-3 V	ClassA1
Amplification factor	65	ClassA1
Plate resistance	40500 ohm	ClassA1
Transconductance	1600 μS	ClassA1
Plate current	1.4 mA	ClassA1
Grid voltage for plate current 30 μA	-5.5 V	ClassA1

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater voltage tolerance	0.6 V	±
Heater current	1.05 A	HeaterVoltage=6.3V
Peak heater-cathode voltage, heater negative	200 V	Section2
Peak heater-cathode voltage, heater positive	200 V	Section2
Heater-cathode positive DC component maximum	100 V	Section2
Maximum DC plate voltage	275 V	VerticalDeflectionAmplifier
Maximum peak positive-pulse plate voltage	2000 V	VerticalDeflectionAmplifier
Peak negative-pulse grid voltage	250 V	VerticalDeflectionAmplifier
Peak cathode current	175 mA	VerticalDeflectionAmplifier
Average cathode current	50 mA	VerticalDeflectionAmplifier
Maximum plate dissipation	7 W	VerticalDeflectionAmplifier
Maximum grid-circuit resistance	2.2 MΩ	VerticalDeflectionAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	9.5 pF	Section2
Input capacitance	6.5 pF	Section2
Output capacitance	1.2 pF	Section2

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	60 V	ClassA1
Grid voltage	0 V	ClassA1;PlateVoltage=60V;ShortInterval<=2s
Plate current	95 mA	ClassA1;PlateVoltage=60V
Plate voltage	150 V	ClassA1
Grid voltage	-17.5 V	ClassA1;PlateVoltage=150V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	6	ClassA1;PlateVoltage=150V
Plate resistance	920 ohm	ClassA1;PlateVoltage=150V
Transconductance	6500 μ S	ClassA1;PlateVoltage=150V
Plate current	35 mA	ClassA1;PlateVoltage=150V
Plate current at grid -25 V	6 mA	ClassA1;PlateVoltage=150V
Grid voltage for plate current 50 μ A	-36 V	ClassA1;PlateVoltage=150V



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
Heater Voltage (ac/dc) 6.3 11	14.7 V	Published in approved 6FY7 target entry; Section1
Heater Current 1.05 0.6	450 mA	Published in approved 6FY7 target entry; Section1
Heater Warm-up Time (Average) – 11	11 seconds	Published in approved 6FY7 target entry; Section1
–	36 V	Published in approved 6FY7 target entry; Section1
DC Plate Voltage 330	275 V	Published in approved 6FY7 target entry; Section1
Peak Positive-Pulse Plate Voltage*	2000 V	Published in approved 6FY7 target entry; Section1
Peak Negative-Pulse Plate Voltage 400	250 V	Published in approved 6FY7 target entry; Section1
Peak Cathode Current 70	175 mA	Published in approved 6FY7 target entry; Section1
Average Cathode Current 20	50 mA	Published in approved 6FY7 target entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-Circuit Resistance 2.2	2.2 MΩ	Published in approved 6FY7 target entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 250	150 V	Published in approved 6FY7 target entry; Section1
Grid Voltage -3	17.5 V	Published in approved 6FY7 target entry; Section1
Plate Resistance (Approx.) 40500	920 Ω	Published in approved 6FY7 target entry; Section1
Plate Current 1.4	35 mA	Published in approved 6FY7 target entry; Section1

1975 RCA RC30

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3 11	14.7 V	Published in approved 6FY7 target entry; Section2
Heater Current 1.05 0.6	450 mA	Published in approved 6FY7 target entry; Section2
Heater Warm-up Time (Average) – 11	11 seconds	Published in approved 6FY7 target entry; Section2
–	36 V	Published in approved 6FY7 target entry; Section2
DC Plate Voltage 330	275 V	Published in approved 6FY7 target entry; Section2
Peak Positive-Pulse Plate Voltage*	2000 V	Published in approved 6FY7 target entry; Section2
Peak Negative-Pulse Plate Voltage 400	250 V	Published in approved 6FY7 target entry; Section2
Peak Cathode Current 70	175 mA	Published in approved 6FY7 target entry; Section2
Average Cathode Current 20	50 mA	Published in approved 6FY7 target entry; Section2
Grid-Circuit Resistance 2.2	2.2 MΩ	Published in approved 6FY7 target entry; Section2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 250	150 V	Published in approved 6FY7 target entry; Section2
Grid Voltage -3	17.5 V	Published in approved 6FY7 target entry; Section2
Plate Resistance (Approx.) 40500	920 Ω	Published in approved 6FY7 target entry; Section2
Plate Current 1.4	35 mA	Published in approved 6FY7 target entry; Section2

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