

Combined damper diode and beam-power horizontal-deflection amplifier, integrating high-current line-output and recovery-diode functions in a single television tube.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	12
NOMINAL HEATER	37.8 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
PEAK INVERSE VOLTAGE	4200 V
NOMINAL OUTPUT CURRENT	200 mA
PEAK FORWARD CURRENT	1.2 A
FORWARD VOLTAGE DROP	21 V
MAXIMUM HEATER-CATHODE VOLTAGE	4200 V
WARM-UP TIME	11 s
TV damper.	

SECTION2 Beam Power	
PLATE RESISTANCE	6200 Ω
TRANSCONDUCTANCE	0.0088 S
AMPLIFICATION FACTOR	4.2
MAXIMUM PLATE VOLTAGE	500 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	3.5 W
MAXIMUM CATHODE CURRENT	230 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>Horizontal deflection; pulse plate 5000 V.</i>	

38HK7 is a BeamPower vacuum tube documented in the RCA Receiving Tube Manual. The supplied excerpt was reviewed for heater or filament data, physical section arrangement, maximum ratings, electrical characteristics, capacitances, and stated application.



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 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube Voltage Drop	16 V	I _b =350mA

1968 GENERAL ELECTRIC CO

Section 2 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	5000 V	HorizontalDeflection



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 · Diode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube Voltage Drop for plate current of	350 mA	Tube Voltage Drop for plate current of 350 mA 21 volts
Heater Voltage (ac/dc) 37.8	53.2 V	Heater Voltage (ac/dc) 37.8 53.2 volts
Heater Current 0.45	315 mA	Heater Current 0.45 0.315 ampere
Heater Warm-up Time (Average) 11	11 s	Heater Warm-up Time (Average) 11 11 seconds

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 130 3500 50	130 V	Plate Voltage 130 3500 50 130 volts
Grid-No.2 (Screen-Grid) Voltage 130 130 130	130 V	Grid-No.2 (Screen-Grid) Voltage 130 130 130 130 volts
Grid-No.1 (Control-Grid) Voltage -22 0 -	22 V	Grid-No.1 (Control-Grid) Voltage -22 0 -22 volts
Plate Current 450	60 mA	Plate Current 450 60 mA
Grid-No.2 Current 40	2.8 mA	Grid-No.2 Current 40 2.8 mA
current of	1 mA	current of 1 mA -66 -39 volts
Tube voltage drop	21 V	Published instantaneous characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	500 V	Plate Voltage 500 volts
Peak Positive-Pulse Plate Voltage	5000 V	Peak Positive-Pulse Plate Voltage 5000 volts
Peak Negative-Pulse Plate Voltage	0 V	Peak Negative-Pulse Plate Voltage 0 volts
Grid-No.2 Voltage	150 V	Grid-No.2 Voltage 150 volts
DC Grid-No.1 Voltage, Negative-bias value	55 V	DC Grid-No.1 Voltage, Negative-bias value 55 volts
Peak Neirative-Pulse Grid-No.1 Voltage	330 V	Peak Neirative-Pulse Grid-No.1 Voltage 330 volts
Average Cathode Current	230 mA	Average Cathode Current 230 mA
Grid-No.1-Circuit Resistance	1 Mohm	Grid-No.1-Circuit Resistance 1 megohm
Peak Inverse Plate Voltage#	4200 V	Peak Inverse Plate Voltage# 4200 volts
Peak Plate Current	1200 mA	Peak Plate Current 1200 mA
Average Plate Current	200 mA	Average Plate Current 200 mA
Tube Voltage Drop for plate current of	350 mA	Tube Voltage Drop for plate current of 350 mA 16 volts
Peak inverse plate voltage	4200 V	Published rectifier rating
Average output/plate current	200 mA	Published rectifier operating/rating value

1975 RCA RC30

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	6200 ohm	Plate Resistance 6200 ohms
Amplification factor	4.2	Published section characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	130 V	Published maximum rating
Maximum screen-grid voltage	130 V	Published maximum rating

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