



ELECTRONIC TUBE REFERENCE

31JS6C

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Duodecar beam-power tube for color and monochrome television horizontal-deflection amplification, with approximately 30 W plate dissipation and low plate resistance for powerful line-output operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12FY	BASE PINS	12
NOMINAL HEATER	31.5 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

12FY - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	–	K – Cathode	CONNECTED
PIN3	–	G2 – Screen Grid	CONNECTED
PIN4	–	G3 – Suppressor Grid	CONNECTED
PIN5	–	G1 – Control Grid	CONNECTED
PIN7	–	–	IC
PIN9	–	–	IC
PIN10	–	G3 – Suppressor Grid	CONNECTED
PIN11	–	G2 – Screen Grid	CONNECTED
PIN12	–	H – Heater	CONNECTED
CAP1	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	5500 Ω
TRANSCONDUCTANCE	0.0115 S
MAXIMUM PLATE VOLTAGE	990 V
MAXIMUM SCREEN VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	30 W
MAXIMUM CATHODE CURRENT	350 mA
<i>Promoted from published ratings/characteristics where directly applicable; additional published values retained in TUBE_SECTION_PARAMETER.</i>	

Duodecar beam-power tube used as a horizontal-deflection amplifier in color and black-and-white television receivers.

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 6.3 23.6	31.5 V	Published in approved 31JS6C target datasheet entry; Section1
Heater Current 2.25 0.6	450 mA	Published in approved 31JS6C target datasheet entry; Section1
Heater Warm-up Tme (Average) a 1	1 seconds	Published in approved 31JS6C target datasheet entry; Section1
Plate Resistance (Approx.) _ _	5500 Ω	Published in approved 31JS6C target datasheet entry; Section1
Plate Current – – 000v	130 mA	Published in approved 31JS6C target datasheet entry; Section1
current of	1 mA	Published in approved 31JS6C target datasheet entry; Section1
Peak Positive-Pulse Plate Voltage#	7500 V	Published in approved 31JS6C target datasheet entry; Section1
Peak Negative-Pulse Plate Voltage	1200 V	Published in approved 31JS6C target datasheet entry; Section1
DC Grid-No.2 Voltage	220 V	Published in approved 31JS6C target datasheet entry; Section1
Peak Negative-Pulse Grid-No. 1 Voltage	330 V	Published in approved 31JS6C target datasheet entry; Section1
Average Cathode Current	350 mA	Published in approved 31JS6C target datasheet entry; Section1
Peak Cathode Current	1200 mA	Published in approved 31JS6C target datasheet entry; Section1
Plate Dissipation"*	30 W	Published in approved 31JS6C target datasheet entry; Section1
Grid-No.2 Input	5.5 W	Published in approved 31JS6C target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Bulb Temperature (At hottest point)	225 °C	Published in approved 31JS6C target datasheet entry; Section1
For grid bias feedback HV regulation	0.47 MΩ	Published in approved 31JS6C target datasheet entry; Section1
For dc or pulse shunt HV regulation	10 MΩ	Published in approved 31JS6C target datasheet entry; Section1
# Pulse duration must not exceed 15',y of one horizontal scanning cycle (	10 microseconds	Published in approved 31JS6C target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.5	24 pF	Published in approved 31JS6C target datasheet entry; Section1
Plate to Cathode, Heater, Grid No.2, and Grid No.3	10 pF	Published in approved 31JS6C target datasheet entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 (Screen-Grid) Voltage ... 125 125 125	125 V	Published in approved 31JS6C target datasheet entry; Section1
Grid-No. 1 (Control-Grid) Voltage -25 - 0	25 V	Published in approved 31JS6C target datasheet entry; Section1

TUBE TINKER

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