

ELECTRONIC TUBE REFERENCE

31JS6A

Power - TV Horizontal Output (sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Beam-power horizontal-output tube for color and monochrome television receivers, combining approximately 30 W plate dissipation with low plate resistance and high-voltage line-deflection capability.

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
MAXIMUM PLATE VOLTAGE	990 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	30 W
MAXIMUM SCREEN DISSIPATION	5.5 W
MAXIMUM CATHODE CURRENT	350 mA
<i>Source sheet states electrical identity to 6JS6A except heater characteristics; no complete 6JS6A table is reproduced.</i>	

Beam power tube for horizontal-deflection amplifier service in color and black-and-white television receivers. It is an explicit heater variant/co-designation in 23JS6A.pdf.



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 · Beam Power

CROSSREFERENCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cross-reference / electrical identity	6JS6A	—

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater warm-up time	11 s	—



SOURCE OPERATING CONDITIONS

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 Warm-up Tme (Average) a	1 s	Other;PublishedValue1
Heater Warm-up Tme (Average) a	1 s	Other;PublishedValue2
Peak value	200 V	Other;PublishedValue1
Peak value	200 V	Other;PublishedValue2
Peak value	200 V	Other;PublishedValue3
Average value	100 V	Other;PublishedValue1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average value	100 V	Other;PublishedValue2
Average value	100 V	Other;PublishedValue3
Peak Positive-Pulse Plate Voltage#	7500 V	MaximumRating
Peak Negative-Pulse Plate Voltage	1200 V	MaximumRating
DC Grid-No	2 V	MaximumRating;PublishedValue1
DC Grid-No	220 V	MaximumRating;PublishedValue2
Peak Negative-Pulse Grid-No	1 V	MaximumRating;PublishedValue1
Peak Negative-Pulse Grid-No	330 V	MaximumRating;PublishedValue2
Average Cathode Current	350 mA	MaximumRating
Peak Cathode Current	1200 mA	MaximumRating
Plate Dissipation"	30 W	MaximumRating
Grid-No	2 W	MaximumRating;PublishedValue1
Grid-No	5.5 W	MaximumRating;PublishedValue2
Maximum Plate Voltage	990 V	Section1;Promoted
Maximum Screen Voltage	125 V	Section1;Promoted
Maximum Plate Dissipation	30 W	Section1;Promoted
Maximum Screen Dissipation	5.5 W	Section1;Promoted
Maximum Cathode Current	350 mA	Section1;Promoted

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1
Grid No.1 to Cathode, Heater, Grid No	24 pF	Capacitance;PublishedValue2
Plate to Cathode, Heater, Grid No	2 pF	Capacitance;PublishedValue1
Plate to Cathode, Heater, Grid No	3 pF	Capacitance;PublishedValue2
Plate to Cathode, Heater, Grid No	10 pF	Capacitance;PublishedValue3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	2 V	Characteristic;PublishedValue1
Grid-No	125 V	Characteristic;PublishedValue2
Grid-No	125 V	Characteristic;PublishedValue3
Grid-No	125 V	Characteristic;PublishedValue4
Grid-No	1 V	Characteristic;PublishedValue1
Grid-No	-25 V	Characteristic;PublishedValue2
Grid-No	0 V	Characteristic;PublishedValue3
Grid-No	25 V	Characteristic;PublishedValue4
Plate Resistance (Approx.) _ —	5500 ohm	Characteristic
Plate Current — — 000v	130 mA	Characteristic
Grid-No	2 mA	Characteristic;PublishedValue1
Grid-No	2 mA	Characteristic;PublishedValue2
Grid-No	2 mA	Characteristic;PublishedValue3
current of	1 mA	Characteristic
— —	54 V	Characteristic
Plate Resistance	5500 ohm	Section1;Promoted

TUBE TINKER

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