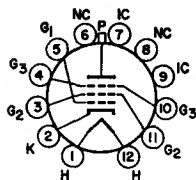


Refer to chart at end of section.

6JS6



12FY

BEAM POWER TUBE

6JS6A

31JS6A

Duodecar types used as horizontal-deflection amplifiers in color and black-and-white television receivers. Outlines section, 16B; requires duodecar 12-contact socket. Type 31JS6A is identical with type 6JS6A except for heater ratings.

Heater Voltage (ac/dc)	6.3	31.5	volts
Heater Current	2.25	0.45	amperes
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Grid No.1 to Plate		0.7	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		24	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		10	pF

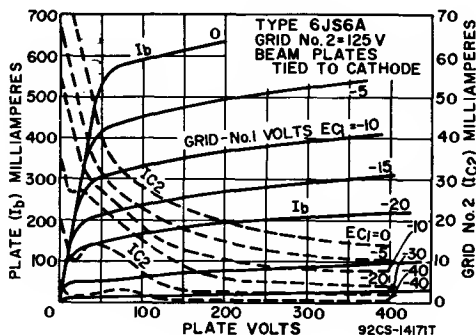
Class A₁ Amplifier

CHARACTERISTICS

	Triode†† Connection		Pentode Connection		
Plate Voltage	125	5000	70	175	volts
Grid No.3 (Suppressor Grid)	—	—	Connected to cathode at socket		
Grid-No.2 (Screen-Grid) Voltage	125	5000	70	175	volts
Grid-No.1 (Control-Grid) Voltage	—25	—	0	—25	volts
Plate Resistance (Approx.)	—	—	—	5600	ohms
Transconductance	—	—	—	11300	μmhos
Plate Current	—	—	570†	125	mA
Grid-No.2 Current	—	—	34†	4.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—140	—	—54	volts
Triode Amplification Factor	3	—	—	—	

† This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

†† Grid No.2 connected to plate.



DC Grid-No.3 Voltage	70	volts
DC Grid-No.2 Voltage	190	volts
Peak Negative-Pulse Grid-No.1 Voltage	250	volts
Average Cathode Current	315	mA
Peak Cathode Current	1100	mA
Plate Dissipation**	28	watts
Grid-No.2 Input	5.5	watts
Bulb Temperature (At hottest point)	225	°C

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	1	megohm
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Pulse duration must not exceed 15% of one horizontal scanning cycle (10 microseconds).

** A bias resistor or other means is required to protect the tube in absence of excitation.

6JT6

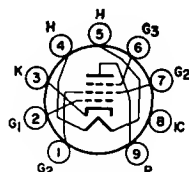
Refer to chart at end of section.

6JT6A

12JT6A, 17JT6A

BEAM POWER TUBE

Novar types used as horizontal-deflection amplifiers in high-efficiency deflection circuits of black-and-white television receivers employing wide-angle or high-voltage picture tubes. Outlines section, 31A; requires novar 9-contact socket. Types 12JT6A and 17JT6A are identical with type 6JT6A except for heater ratings.



	6JT6A	12JT6A	17JT6A	
Heater Voltage (ac/dc)	6.3	12.6	16.8	volts
Heater Current	1.2	0.6	0.45	amperes
Heater Warm-up Time (Average)	—	11	11	seconds
Heater-Cathode Voltage:				
Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances:				
Grid No.1 to Plate			0.26	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3			15	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3			6.5	pF

Class A₁ Amplifier**CHARACTERISTICS**

	Pentode Connection	Triode* Connection	
Plate Voltage	60	250	volts
Grid No.3 (Suppressor Grid)	150	150	volts
Grid-No.2 (Screen-Grid) Voltage	0	—22.5	volts
Grid-No.1 (Control-Grid) Voltage	—	—	volts
Triode Amplification Factor	—	4.4	
Plate Resistance (Approx.)	—	15000	ohms
Transconductance	—	7100	μmhos
Plate Current	390*	70	mA
Grid-No.2 Current	32*	2.1	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—42	volts

* Grid No.2 connected to plate.

This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

Horizontal-Deflection Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage	770	volts
Peak Positive-Pulse Plate Voltage#	6500	volts
Peak Negative-Pulse Plate Voltage	1500	volts
DC Grid-No.3 Voltage ^a	70	volts
DC Grid-No.2 Voltage	220	volts
DC Grid-No.1 Voltage, Negative-bias value	55	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	550	mA