

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

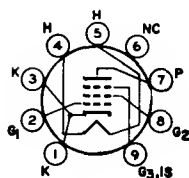
	Triode Unit	Pentode Unit	
Plate Voltage	275	275	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	275	volts
Grid-No.2 Voltage	See curve	page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	1.7	2.3	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 137.5 volts	—	0.45	watt
For grid-No.2 voltages between 137.5 and 275 volts	See curve	page 98	

CHARACTERISTICS

Plate Voltage	125	100	125	volts
Grid-No.2 Voltage	—	70	125	volts
Grid-No.1 Voltage	—1	0	—1	volt
Amplification Factor	40	—	—	
Plate Resistance (Approx.)	6000	—	300000	ohms
Transconductance	6500	5700	5500	μmhos
Plate Current	12	—	9	mA
Grid-No.2 Current	—	—	2.2	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	—7	—	6.5	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	—	0.1	megohm
For cathode-bias operation	—	0.5	megohm



9PM

SHARP-CUTOFF PENTODE

6JD6

3JD6, 4JD6

Miniature type used as if-amplifier tube in color and black-and-white television receivers utilizing an intermediate frequency in the order of 40 MHz. Outlines section, 6B; requires miniature 9-contact socket. Types 3JD6 and 4JD6 are identical with type 6JD6 except for heater ratings.

	3JD6	4JD6	6JD6	
Heater Voltage (ac/dc)	3.5	4.5	6.3	volts
Heater Current	0.6	0.45	0.3	ampere
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			0.019 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield			8.2	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield			3	pF

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Plate Voltage	330	volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0	volts
Grid-No.2 (Screen-Grid) Supply Voltage	330	volts
Grid-No.2 Voltage	See curve	page 98
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	2.5	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 165 volts	0.6	watt
For grid-No.2 voltages between 165 and 330 volts	See curve	page 98

CHARACTERISTICS

Plate Supply Voltage	125	volts
Grid-No.3 Voltage	0	volts
Grid-No.2 Supply Voltage	125	volts
Grid-No.1 Supply Voltage	0	volts
Cathode-Bias Resistor	56	ohms
Plate Resistance (Approx.)	160000	ohms
Transconductance	14000	μmhos
Plate Current	15	mA
Grid-No.2 Current	4	mA
Grid-No.1 Voltage (Approx.) for transconductance of 600 μmhos	—4.5	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation

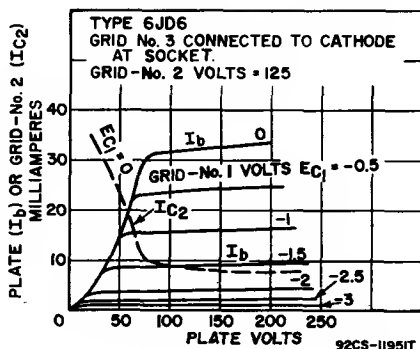
0.25

megohm

For cathode-bias operation

1

megohm



6JE6

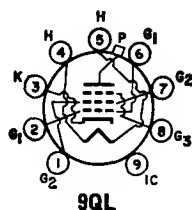
Refer to chart at end of section.

6JE6A

24JE6A

BEAM POWER TUBE

Novar type used as horizontal-deflection amplifier in color television receivers. Outlines section, 32B; requires novar 9-contact socket. Type 24JE6A is identical to type 6JE6A except for heater ratings.



	6JE6A	24JE6A	
Heater Voltage (ac/dc)	6.3	24	volts
Heater Current	2.5	0.6	amperes
Heater Warm-up Time	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):			
Grid No.1 to Plate		0.56	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		22	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		11	pF

Class A₁ Amplifier

CHARACTERISTICS

	Triode Connection ^A	Pentode Connection	
Plate Voltage	125	70 175	volts
Grid No.3 (Suppressor Grid)	Connected to cathode at socket		
Grid-No.2 (Screen-Grid) Voltage	—	125	volts
Grid-No.1 (Control-Grid) Voltage	—25	0 —25	volts
Amplification Factor	3	—	
Plate Resistance (Approx.)	—	—	ohms
Transconductance	—	—	μmhos
Plate Current	—	600† 130	mA
Grid-No.2 Current	—	36† 2.8	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	— —54	volts

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

^A Grid No.2 connected to plate.

Horizontal-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage	990	volts
Peak Positive-Pulse Plate Voltage [#]	7500	volts