

Heater Voltage (ac/dc)	6.3	volts	
Heater Current	0.4	ampere	
Peak Heater-Cathode Voltage	±100 max	volts	
Direct Interelectrode Capacitances:	Unit No.1	Unit No.2	
Grid to Plate	1.4	0.6	pF
Grid to Cathode, Heater, and Internal Shield	3	5	pF
Plate to Cathode, Heater, and Internal Shield	1	4	pF
Heater to Cathode	2.8	2.8	pF
Grid of Unit No.1 to Grid of Unit No.2		0.003 max	pF
Plate of Unit No.1 to Plate of Unit No.2		0.009 max	pF

Class A₁ Amplifier

	Unit No.1 Oscillator	Unit No.2 RF Amplifier	
MAXIMUM RATINGS (Design-Maximum Values)			
Plate Voltage	165	200	volts
Negative Grid Voltage	50	50	volts
Average Cathode Current	22	22	mA
Plate Dissipation	1	2	watts
CHARACTERISTICS			
Plate Voltage	100	135	volts
Grid Voltage	-1	-1.2	volts
Amplification Factor	55	70	
Plate Resistance (Approx.)	8000	5400	ohms
Transconductance	6800	13000	μ mhos
Plate Current	5.3	10	mA
Grid Voltage (Approx.):			
For plate current of 20 μ A	-4.4	—	volts
For transconductance of 150 μ mhos	—	-5.5	volts
For transconductance of 1500 μ mhos	—	-2.8	volts
MAXIMUM CIRCUIT VALUES			
Grid-Circuit Resistance, for cathode-bias operation	1	1	megohm

6JM6

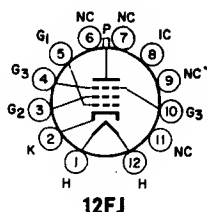
Refer to chart at end of section.

6JM6A

17JM6A

BEAM POWER TUBE

Duodecar types used as horizontal-amplifier tubes in color and black-and-white television receivers. Outlines section, 16A; requires duodecar 12-contact socket. Type 17JM6A is identical with type 6JM6A except for heater ratings.



12FJ

	6JM6A	17JM6A	
Heater Voltage (ac/dc)	6.3	16.8	volts
Heater Current	1.2	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		0.6	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		16	pF
Plate to Cathode, Heater, Grid No. 2, and Grid No. 3		7	pF

Class A₁ Amplifier

CHARACTERISTICS	Pentode Connection			Triode** Connection	
	5000	55	250	150	
Plate Voltage	5000	55	250	150	volts
Grid-No.3 (Suppressor-Grid)	Connected to cathode at socket				
Grid-No.2 (Screen-Grid) Voltage	150	150	150	150	volts
Grid-No.1 (Control-Grid) Voltage	—	0	—22.5	—22.5	volts
Plate Resistance (Approx.)	—	—	15000	—	ohms
Transconductance	—	—	7300	—	μ mhos
Plate Current	—	345*	65	—	mA
Grid-No.2 Current	—	30*	1.8	—	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 μ A	—100	—	—42	—	volts
Amplification Factor	—	—	—	4.4	

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance 1 megohm

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

** Grid No.2 tied to plate.

Horizontal-Deflection Amplifier

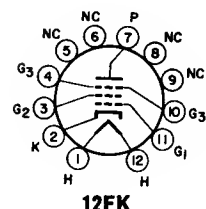
For operation in a 525-line, 30-frame system

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	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
Average Cathode Current	175	mA
Peak Cathode Current	550	mA
Plate Dissipation**	17.5	watts
Grid-No.2 Input	8.5	watts
Bulb Temperature (At hottest point)	220	°C

Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

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



12FN

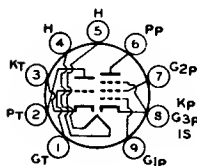
BEAM POWER TUBE

6JN6

12JN6, 17JN6

Duodeca type used as horizontal-amplifier tube in color and black-and-white television receivers. Outlines section, 15A; requires duodeca 12-contact socket. This type is electrically identical with type 6JM6 except that it has a slightly lower grid-No.1-to-plate capacitance. Types 12JN6 and 17JN6 are identical with type 6JN6 except for heater ratings.

	6JN6	12JN6	17JN6	
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
Direct Interelectrode Capacitances:				
Grid No.1 to Plate			0.34	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3			16	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3			7	pF



9FA

**MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE**

6JN8

19JN8

Miniature type used as FM converter and rf amplifier in radio receivers. Outlines section, 6B; requires miniature 9-contact socket. Type 19JN8 is identical with type 6JN8 except for heater ratings.

	6JN8	19JN8	
Heater Voltage (ac/dc)	6.3	18.9	volts
Heater Current	0.45	0.15	ampere
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:*			
Pentode Unit:			
Grid No.1 to Plate		0.01	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		5.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		3.4	pF