

	Pentode Connection			Triode* Connection	
Plate Current	—	320*	48	—	mA
Grid-No.2 Current	—	22*	2.9	—	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—80	—	—40	—	volts

* Grid No.2 tied 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.

Beam Power Unit as Horizontal-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage	400	volts
Peak Positive-Pulse Plate Voltage#	5000	volts
Peak Negative-Pulse Plate Voltage	0	volts
DC Grid-No.2 Voltage	150	volts
DC Grid-No.1 Voltage	—55	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	540	mA
Average Cathode Current	155	mA
Plate Dissipation†	9	watts
Grid-No.2 Input	3	watts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	1	megohm
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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.

Damper Service (Diode Unit)

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

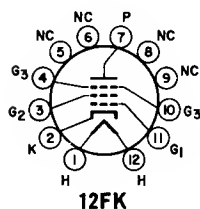
MAXIMUM RATINGS (Design-Maximum Values)

Maximum value#	Maximum value#		
Peak Inverse Plate Voltage#	4200		volts
Peak Plate Current	810		mA
Average Plate Current	135		mA
Plate Dissipation	3.8		watts
Heater-Cathode Voltage:			
Peak value	+200	—4200	volts
Average value	+100	—400	volts
Bulb Temperature (At hottest point)	200		°C

CHARACTERISTICS, Instantaneous Value

Tube Voltage Drop for plate current of 250 mA	21	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).



BEAM POWER TUBE

33JV6
21JV6

Duodecar type used as horizontal-deflection amplifier in television receivers. Outlines section, 15B; requires duodecar 12-contact socket. Type 21JV6 is identical with type 33JV6 except for heater ratings.

	21JV6	33JV6	
Heater Voltage (ac/dc)	21	33	volts
Heater Current	0.45	0.3	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Class A₁ Amplifier

CHARACTERISTICS	Triode* Connection		Pentode Connection		
Plate Voltage	130	5000	60	130	volts
Grid No.3 (Suppressor Grid)		Connected to cathode at socket.			
Grid-No.2 (Screen-Grid) Voltage	130	130	130	130	volts
Grid-No.1 (Control-Grid) Voltage	—20	—	0	—20	volts
Plate Resistance (Approx.)		—	—	11000	ohms
Transconductance		—	—	9100	μmhos
Plate Current		—	410	50	mA
Grid-No.1 Current		—	24	1.75	mA

	Triode Connection	Pentode Connection	
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—66	—33 volts
Amplification Factor	4.7	—	—
* 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#	6000	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	230	mA
Peak Cathode Current	800	mA
Plate Dissipation**	18	watts
Grid-No.2 Input	3.5	watts
Bulb Temperature (At hottest point)	220	°C

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	1	megohm
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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.

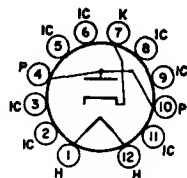
34

Refer to chart at end of section.

34CE3

HALF-WAVE VACUUM RECTIFIER

Duodecar type used as damper tube in television receivers. Outlines section, 8G; requires duodecar 12-contact socket. Heater: volts, 34.5; amperes, 0.45; warm-up time, 11 seconds.



12GK

Damper Service

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

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	5000	volts	
Peak Plate Current	1500	mA	
Average Plate Current	350	mA	
Plate Dissipation	11	watts	
Heater-Cathode Voltage:			
Peak value	+300	—5000	volts
Average value	+100	—900	volts

CHARACTERISTICS, Instantaneous Value

Tube Voltage Drop for plate current of 680 mA	20	volts
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

34CM3

Refer to type 6CM3.

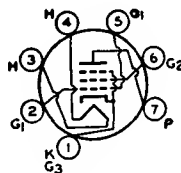
34GD5

Refer to chart at end of section.

34GD5A

BEAM POWER TUBE

Miniature type used in audio output stages of compact ac/dc radio receivers. Outlines section, 5D; requires miniature 7-contact socket. Heater: volts (ac/dc), 34; amperes 0.1; warm-up time, 20 seconds; maximum heater-cathode volts, ± 200 peak, 100 average.



7CV