

Mu-Factor, Grid No.2 to Grid No.1	—	3.8	
Plate Resistance (Approx.)	—	5000	ohms
Transconductance	—	8800	μmhos
Plate Current	460*	90	mA
Grid-No.2 Current	42*	6	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—60	volts

* These values can be measured by a method involving a recurrent waveform such that the maximum rating 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 Voltage	880	volts
Peak Positive-Pulse Plate Voltage#	6800	volts
Peak Negative-Pulse Plate Voltage	1650	volts
DC Grid-No.2 (Screen-Grid) Voltage	220	volts
DC Grid-No.1 (Control-Grid) Voltage	—55	volts
Peak Negative-Pulse Grid-No.1 Voltage	220	volts
Peak Cathode Current	850	mA
Average Cathode Current	240	mA
Grid-No.2 Input	4	watts
Plate Dissipation†	26	watts
Bulb Temperature (At hottest point)	220	°C

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	0.47	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.

6CB6

Refer to chart at end of section.

For replacement use type 6CB6A/6CF6.

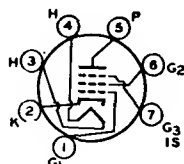
6CB6A

For replacement use type 6CB6A/6CF6.

**6CB6A/
6CF6**

3CB6/3CF6, 4CB6

SHARP-CUTOFF PENTODE



7CM

Miniature types used in color and black-and-white television receivers as if amplifier at frequencies up to about 45 MHz and as rf amplifiers in vhf television tuners. Outlines section, 5C; requires miniature 7-contact socket. For typical operation as resistance-coupled amplifiers, refer to Resistance-Coupled Amplifier section. Types 3CB6/3CF6, and 4CB6 are identical with type 6CB6A/6CF6 except for heater ratings.

	3CB6/3CF6	4CB6	6CB6A/6CF6	
Heater Voltage (ac/dc)	3.15	4.2	6.3	volts
Heater Current	0.6	0.45	0.3	ampere
Heater Warm-up Time (Average)	11	11	11	seconds
Heater-Cathode Voltage:				
Peak value	{ +200 max —300 max	{ +200 max —300 max	±200 max	volts
Average value	100 max	{ +100 max —200 max	100 max	volts
Direct Interelectrode Capacitances:		Unshielded	Shielded ^Δ	
Grid No.1 to Plate		0.025 max	0.015 max	pF
Grid No.1 to Cathode, Heater, Grid No.2,				
Grid No.3, and Internal Shield		6.5	6.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3,				
and Internal Shield		2	3	pF

^Δ With external shield connected to cathode.

Class A₁ Amplifier

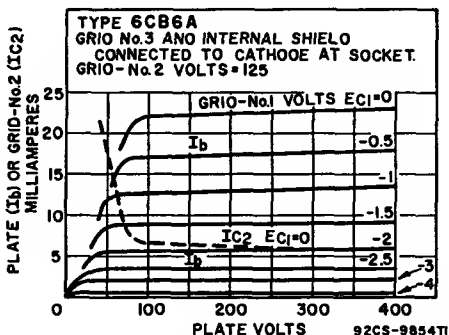
MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	330	volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0	volts
Grid-No.2 (Screen-Grid) Voltage	See curve page 300	

Grid-No.2 Supply Voltage	330	volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	2.3	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 165 volts	0.55	watt
For grid-No.2 voltages between 165 and 330 volts	See curve page 300	

CHARACTERISTICS

Plate Supply Voltage	125	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	125	volts
Cathode-Bias Resistor	56	ohms
Plate Resistance (Approx.)	0.28	megohm
Transconductance	8000	μ mhos
Plate Current	13	mA
Grid-No.2 Current	3.7	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μ A	-6.5	volts
Grid-No.1 Voltage (Approx.) for plate current of 2.8 mA	-3	volts



For replacement use type 6CE3/6CD3/6DT3.

Refer to chart at end of section.

6CD3

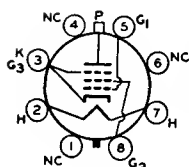
6CD6G

6CD6GA

25CD6GB

BEAM POWER TUBE

Glass octal type used as horizontal-deflection amplifier in high-efficiency deflection circuits of color and black-and-white television receivers. Outlines section, 21B; requires octal socket. This type may be supplied with pins 1, 4, and 6 omitted. Vertical tube mounting is preferred, but horizontal operation is permissible if pins No.2 and 7 are in vertical plane. Type 25CD6GB is identical with type 6CD6GA except for heater ratings.



5BT

	6CD6GA	25CD6GB	
Heater Voltage (ac/dc)	6.3	25	volts
Heater Current	2.5	0.6	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 (Approx.):			
Grid No.1 to Plate		1.1	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		8.5	pF

Class A₁ Amplifier

Plate Voltage	60	175	volts
Grid-No.2 (Screen-Grid) Voltage	100	175	volts
Grid-No.1 (Control-Grid) Voltage	0	-30	volts
Mu-Factor, Grid No.2 to Grid No.1	—	3.9	