



6CM6

BEAM POWER TUBE

9-PIN MINIATURE TYPE

6CM6

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 0.45 amp

Direct Interelectrode Capacitances (Approx.):^oGrid No.1 to plate. 0.7 μf Grid No.1 to cathode, grid No.3,
grid No.2, and heater 8 μf Plate to cathode, grid No.3,
grid No.2, and heater 8.5 μf

Mechanical:

Operating Position. Any

Maximum Overall Length. 2-5/8"

Maximum Seated Length. 2-3/8"

Length, Base Seat to Bulb Top (Excluding tip) . . . 2" $\pm$ 3/32"

Diameter. 0.750" to 0.875"

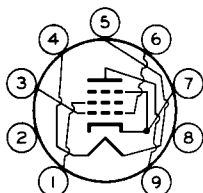
Dimensional Outline See General Section

Bulb. T6-1/2

Base. Small-Button Noval 9-Pin (JETEC No.E9-1)

Basing Designation for BOTTOM VIEW. 9CK

Pin 1-Grid No.2
 Pin 2-No Connec-
 tion
 Pin 3-Grid No.1
 Pin 4-Heater
 Pin 5-Heater



Pin 6-Grid No.1
 Pin 7-Cathode,
 Grid No.3
 Pin 8-No Connec-
 tion
 Pin 9-Plate

AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE 315 max. volts

GRID-No.2 (SCREEN-GRID) VOLTAGE 285 max. volts

GRID-No.2 INPUT 2 max. watts

PLATE DISSIPATION 12 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 200 max. volts

Heater positive with respect to cathode 200[▲] max. volts

Typical Operation and Characteristics:

Plate Voltage 180 250 315 volts

Grid-No.2 Voltage 180 250 225 volts

Grid-No.1 (Control-Grid) Voltage. -8.5 -12.5 -13 volts

Peak AF Grid-No.1 Voltage 8.5 12.5 13 volts

Zero-Signal Plate Current 29 45 34 ma

Max.-Signal Plate Current 30 47 35 ma

Zero-Signal Grid-No.2 Current 3 4.5 2.2 ma

Max.-Signal Grid-No.2 Current 4 7 6 ma

^o,[▲]: See next page.



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Plate Resistance (Approx.)	50000	50000	80000	ohms
Transconductance	3700	4100	3750	μ mhos
Load Resistance	5500	5000	8500	ohms
Total Harmonic Distortion	8	8	12	%
Max.-Signal Power Output	2	4.5	5.5	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

VERTICAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:*For operation in a 525-line, 30-frame system[□]*

DC PLATE VOLTAGE	315 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE [#] (Absolute maximum)	2000 [■] max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE . . .	285 max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL- GRID) VOLTAGE	250 max.	volts
CATHODE CURRENT:		
Peak	120 max.	ma
DC	40 max.	ma
GRID-No.2 INPUT	1.75 max.	watts
PLATE DISSIPATION	8 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 [▲] max.	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For cathode-bias operation	2.2 max.	megohms
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VERTICAL-DEFLECTION AMPLIFIER

*Triode Connection[†]***Maximum Ratings, Design-Center Values Except as Noted:**

DC PLATE VOLTAGE	315 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE [#] (Absolute maximum)	2000 [■] max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL- GRID) VOLTAGE	250 max.	volts
CATHODE CURRENT:		
Peak	120 max.	ma
DC	40 max.	ma
PLATE DISSIPATION	9 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 [▲] max.	volts

□, ▲, #, †: See next page.



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Characteristics:

Plate Voltage	250	volts
Grid-No.1 Voltage	-12.5	volts
Amplification Factor	9.8	
Plate Resistance (Approx.)	1960	ohms
Transconductance	5000	μ mhos
Plate Current	49.5	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 0.5	-37	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance: For cathode-bias operation.	2.2 max.	megohms
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Ⓒ Without external shield.

▲ The dc component must not exceed 100 volts.

□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

■ Under no circumstances should this absolute value be exceeded.

† Grid-No.2 connected to plate.

CURVES

shown under Types 6V6 and 6V6-GT, within ratings,
also apply to the 6CM6