



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.):^o

Grid 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" ± 3/32"

Diameter. 0.750" to 0.875"

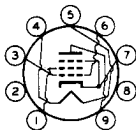
Dimensional Outline See General Section

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 Connection
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 Connection
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.



6CM6

BEAM POWER TUBE

Plate Resistance (Approx.)	50000	50000	80000	ohms
Transconductance	3700	4100	3750	μmhos
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.



6CM6

6CM6

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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

- 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