



6CD6-GA

6CD6-GA BEAM POWER TUBE

Supersedes Type 6CD6-G

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 2.5 amp

Direct Interelectrode Capacitances (Approx.):^oGrid No.1 to plate. 1.1 μf Grid No.1 to cathode & grid No.3,
grid No.2, and heater 22 μf Plate to cathode & grid No.3,
grid No.2, and heater 8.5 μf

Characteristics, 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

Plate Resistance (Approx.). - 7200 ohms

Transconductance. - 7700 μmhos

Plate Current 230* 75 ma

Grid-No.2 Current 21* 5.5 ma

Grid-No.1 Voltage (Approx.) for
plate current of 1 ma - -55 volts

Mechanical:

Mounting Position Vertical, base up or down, or
Horizontal with pins 2 and 7 in vertical plane

Maximum Overall Length. 5"

Seated Length 4-1/4" $\pm$ 3/16"

Maximum Diameter. 1-9/16"

Bulb. T-12

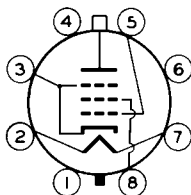
Cap Small (JETEC No.C1-1)

Base. Short Medium-Shell Octal 8-Pin
with External Barriers, Style A (JETEC No.B8-110),
or Short Medium-Shell Octal 8-Pin
with External Barriers, Style B (JETEC No.B8-118)

Basing Designation for BOTTOM VIEW. 5BT

Pin 1 - No Connec-
tion

Pin 2 - Heater

Pin 3 - Cathode,
Grid No.3Pin 4 - No Connec-
tion

Pin 5 - Grid No.1

Pin 6 - No Connec-
tion

Pin 7 - Heater

Pin 8 - Grid No.2
Cap - Plate^o Without external shield.

* These values can be measured by a method involving a recurrent wave form such that the cathode current will be kept within ratings in order to prevent damage to the tube.



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HORIZONTAL DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system[□]

DC PLATE VOLTAGE	700	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum) [⊕]	7000 [■]	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	175	max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-50	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	200	max.	volts
CATHODE CURRENT:			
Peak	700	max.	ma
Average	200	max.	ma
GRID-No.2 INPUT	3	max.	watts
PLATE DISSIPATION†	20	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200 [▲]	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)			
	225	max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For grid-resistor-bias operation†. . . . 0.47 max. megohm

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

■ Under no circumstances should this absolute value be exceeded.

⊕ The duration of the voltage pulse must not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

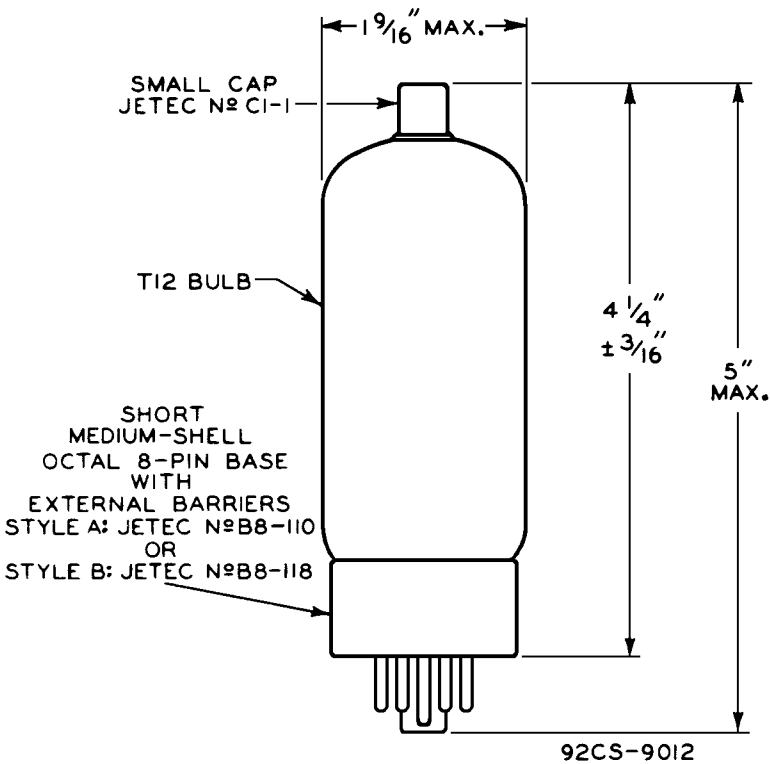
† It is essential that the plate dissipation be limited in the event of loss of grid signal. For this purpose, some protective means such as a cathode resistor of suitable value should be employed.

▲ The dc component must not exceed 100 volts.



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AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS
GRID-Nº2 VOLTS = 175

GRID-Nº2 MILLIAMPERES (I_{C2})

200

150

100

50

500

400

300

PLATE VOLTS

200

100

0

$E_{C1} = 0$

-5

GRID-Nº1 VOLTS (E_{C1}) = -10

-15

-20

-30

I_b

I_b

I_{C2}

$E_{C1} = 0$

-15

-20

-30

700

600

500

PLATE MILLIAMPERES (I_b)

TUBE DIVISION

92CM-9017

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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