



6BF5

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BEAM POWER AMPLIFIER

MINIATURE TYPE

GENERAL DATA**Electrical:**

Heater for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 1.2 amp

Direct Interelectrode Cap. (Approx.; no external shield):

As Beam Power Amplifier:

Grid No.1 to Plate . . 0.65 μf Input 14 μf Output 6 μf **Characteristics as Beam Power Amplifier:**See AMPLIFIER--Class A₁**Characteristics as Triode-Connected Amplifier--Class A₁:**

(Grid No.2 connected to plate)

Plate Voltage 225 volts

Grid Voltage -30 volts

Amplification Factor 6.7

Plate Resistance 2500 ohms

Transconductance 2700 μmhos

Plate Current 10 ma

Grid Voltage (Approx.) for plate
current of 0.5 ma -40 volts**Mechanical:**

Mounting 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"

Maximum Diameter 3/4"

Bulb T-5-1/2

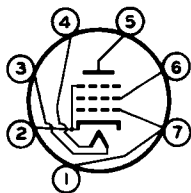
Base Small-Button Miniature 7-Pin (JETEC No.E7-1)

Basing Designation for BOTTOM VIEW 7BZ

Pin 1-Grid No.1

Pin 2-Cathode,
Grid No.3

Pin 3-Heater



Pin 4-Heater

Pin 5-Plate

Pin 6-Grid No.2

Pin 7-Grid No.1

AMPLIFIER--Class A₁**Maximum Ratings, Design-Center Values:**

PLATE VOLTAGE 250 max. volts

GRID-No.2 (SCREEN) VOLTAGE 117 max. volts

PLATE DISSIPATION 5.5 max. watts

GRID-No.2 INPUT 1.25 max. watts

OCT. 1, 1953

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA



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BEAM POWER AMPLIFIER

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	110	volts
Grid-No.2 (Screen) Voltage	110	volts
Grid-No.1 (Control-Grid) Voltage	-7.5	volts
Peak AF Grid-No.1 Voltage	7.5	volts
Zero-Signal Plate Current	36	ma
Maximum-Signal Plate Current	39	ma
Zero-Signal Grid-No.2 Current	4	ma
Maximum-Signal Grid-No.2 Current	10.5	ma
Plate Resistance (Approx.)	12000	ohms
Transconductance	7500	μmhos
Plate Load Resistance	2500	ohms
Total Harmonic Distortion	10	per cent
Maximum-Signal Power Output	1.9	watts

VERTICAL DEFLECTION AMPLIFIER

Triode Connected--Grid No.2 Connected to Plate

Maximum Ratings, Design-Center Values Except as Noted:

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

DC PLATE VOLTAGE	250 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE†	900 [○] max.	volts
CATHODE CURRENT:		
DC	40 max.	ma
Peak	120 max.	ma
PLATE DISSIPATION††	5 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

- The dc component must not exceed 100 volts.
- As described in "Standards of Good Engineering Practice for Television Broadcast Stations", Federal Communications Commission.
- † The duration of the voltage pulse must not exceed 7 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 7 per cent of one vertical scanning cycle is 1.2 milliseconds.
- Under no circumstances should this absolute value be exceeded.
- †† An adequate bias resistor or other means is required to protect the tube in the absence of excitation.