

Beam Power Tube

FORCED-AIR COOLED

GENERAL DATA

Electrical:

Filament, Thoriated Tungsten:

Voltage (AC or DC) $5 \pm 5\%$ volts
 Current at 5 volts 14.5 amp

Transconductance, for plate volts =
 2500, grid-No.2 volts = 500, and
 plate ma. = 100 4000 μ hos

Mu-Factor, Grid No.2 to Grid No.1 5.1

Direct Interelectrode Capacitances
 (Approx.):

Grid No.1 to plate 0.12 μ f
 Grid No.1 to filament, grid No.2,
 and base shell 13 μ f
 Plate to filament, grid No.2,
 and base shell 4.6 μ f

Mechanical:

Operating Position Vertical, base down ←

Maximum Overall Length 6-3/8"

Seated Length 5-3/8" \pm 1/4"

Maximum Diameter 3-9/16"

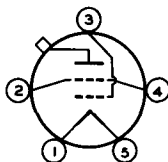
Weight (Approx.) 9 oz

Cap Skirted Small (JEDEC No.C1-22)

Base^a Special Metal-Shell Giant 5-Pin

Basing Designation for BOTTOM VIEW 5BK

Pin 1 - Filament
 Pin 2 - Grid No.2
 Pin 3 - Grid No.1



Pin 4 - Grid No.2
 Pin 5 - Filament
 Cap - Plate

Thermal:

Forced-Air Cooling:

Upward through base toward bulb:

Base-cooling air flow from a small fan or centrifugal blower should be applied simultaneously with filament power. In continuous service 15 cfm at a static pressure of 0.4 inch of water are required through the base when the recommended socket and chimney are used.

Base-Seal Temperature 200 max. °C

Plate-Seal Temperature 225 max. °C

← Indicates a change.



→ **Components:**

Socket. . . . Johnson 122-275, National HX-100, or equivalent
Chimney Penta Labs PL-C1, or equivalent
Heat-Radiating Plate Connector. . . Eimac HR-6, or equivalent

AF POWER AMPLIFIER & MODULATOR — Class AB

Maximum CCS^b Ratings, Absolute-Maximum Values:

DC PLATE VOLTAGE.	4000 max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE. . .	800 max.	volts
MAX.-SIGNAL DC PLATE CURRENT ^c	350 max.	ma
GRID-No.2 INPUT ^c	35 max.	watts
GRID-No.1 (CONTROL-GRID) INPUT ^c	10 max.	watts
PLATE DISSIPATION ^c	400 max.	watts

PLATE-MODULATED RF POWER AMPLIFIER — Class C Telephony

*Carrier conditions per tube for use
with a maximum modulation factor of 1*

Maximum CCS^b Ratings, Absolute-Maximum Values:

At frequencies up to 110 Mc

DC PLATE VOLTAGE.	3200 max.	volts
DC GRID-No.2 VOLTAGE.	600 max.	volts
DC GRID-No.1 VOLTAGE.	-500 max.	volts
DC PLATE CURRENT.	275 max.	ma
GRID-No.2 INPUT	35 max.	watts
GRID-No.1 INPUT	10 max.	watts
PLATE DISSIPATION	270 max.	watts

**RF POWER AMPLIFIER & OSCILLATOR — Class C Telegraphy^d
and**

RF POWER AMPLIFIER — Class C FM Telephony

Maximum CCS^b Ratings, Absolute-Maximum Values:

At frequencies up to 110 Mc

DC PLATE VOLTAGE.	4000 max.	volts
DC GRID-No.2 VOLTAGE.	600 max.	volts
DC GRID-No.1 VOLTAGE.	-500 max.	volts
DC PLATE CURRENT.	350 max.	ma
GRID-No.2 INPUT	35 max.	watts
GRID-No.1 INPUT	10 max.	watts
PLATE DISSIPATION	400 max.	watts

^a Metal base shell should be grounded by means of suitable spring fingers.

^b Continuous Commercial Service.

^c Averaged over any audio-frequency cycle of sine-wave form.

^d Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

→ Indicates a change.

