

Beam Power Tube

FORCED-AIR COOLED

GENERAL DATA

Electrical:

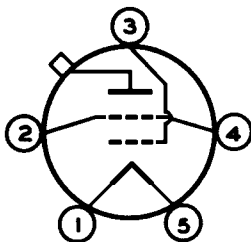
Filament, Thoriated Tungsten:

Voltage (AC or DC)	5 ± 5%	volts
Current at 5 volts	14.5	amp
Transconductance, for plate volts = 2500, grid-No.2 volts = 500, and plate ma. = 100	4000	μmhos
Mu-Factor, Grid No.2 to Grid No.1	5.1	
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to plate	0.12	μμf
Grid No.1 to filament, grid No.2, and base shell	13	μμf
Plate to filament, grid No.2, and base shell	4.6	μμf

Mechanical:

Operating Position	Vertical, base down ←
Maximum Overall Length	6-3/8"
Seated Length	5-3/8" ± 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.



4-400A

→ 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.

