

Beam Power Tube

FORCED-AIR COOLED

GENERAL DATA

Electrical:

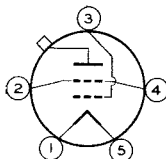
	Min.	Av.	Max.	
Filament, Thoriated Tungsten:				
Voltage (AC or DC)	—	7.5 ^a	—	volts
Current at filament				
volts = 7.5	20	—	22.7	amp
Transconductance	—	10000	—	μ mhos
Mu-Factor, Grid No.2				
to Grid No.1	6.1	—	7.7	
Direct Interelectrode Capac-				
itances (Approx.): ^b				
Grid No.1 to plate	—	—	0.36	pf
Grid No.1 to filament and				
grid No.2	24	—	32	pf
Plate to filament and grid				
No.2	7	—	9.5	pf

Mechanical:

Operating Position	Vertical, base up or down
Maximum Overall Length	9-5/8"
Seated Length	8-3/8" $\pm$ 3/8"
Maximum Diameter	5-1/4"
Weight (Approx.)	1.5 lbs
Cap	Skirted Medium (JEDEC No.C1-14)
Base	Special Ventilated Metal-Shell 5-Pin

BOTTOM VIEW

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:

Through Base—A sufficient airflow should be provided to keep the base-seal temperature below its specified maximum value. The air should enter through the socket, cool the base pins, flow through the base, and then be directed along the bulb envelope.

To Plate Seal—Adequate air should be circulated around the envelope and plate seal to keep the temperature of the latter below its specified maximum value.



8166/4-1000A

Base-Seal Temperature	150 max.	°C
Plate-Seal Temperature	200 max.	°C

Components:

SocketEimac SK-500 Air-System Socket, or equivalent
Heat-Radiating Plate Connector . . .Eimac HR-8, or equivalent

AF POWER AMPLIFIER & MODULATOR—Class AB

Maximum CCS^c Ratings, *Absolute-Maximum Values:*

DC PLATE VOLTAGE	6000 max.	volts
DC GRID-No.2 VOLTAGE	1000 max.	volts
MAX.-SIGNAL DC PLATE CURRENT	700 max.	ma
GRID-No.2 INPUT	75 max.	watts
PLATE DISSIPATION	1000 max.	watts

RF POWER AMPLIFIER & OSCILLATOR—Class C Telephony^d and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum CCS Ratings, *Absolute-Maximum Values:*

At frequencies up to 110 Mc

DC PLATE VOLTAGE	6000 max.	volts
DC GRID-No.2 VOLTAGE	1000 max.	volts
DC GRID-No.1 VOLTAGE	-500 max.	volts
DC PLATE CURRENT	700 max.	ma
GRID-No.2 INPUT	75 max.	watts
GRID-No.1 INPUT	25 max.	watts
PLATE DISSIPATION	1000 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 Ratings, *Absolute-Maximum Values:*

At frequencies up to 110 Mc

DC PLATE VOLTAGE	5000 max.	volts
DC GRID-No.2 VOLTAGE	1000 max.	volts
DC GRID-No.1 VOLTAGE	-500 max.	volts
DC PLATE CURRENT	600 max.	ma
GRID-No.2 INPUT	75 max.	watts
GRID-No.1 INPUT	25 max.	watts
PLATE DISSIPATION	670 max.	watts

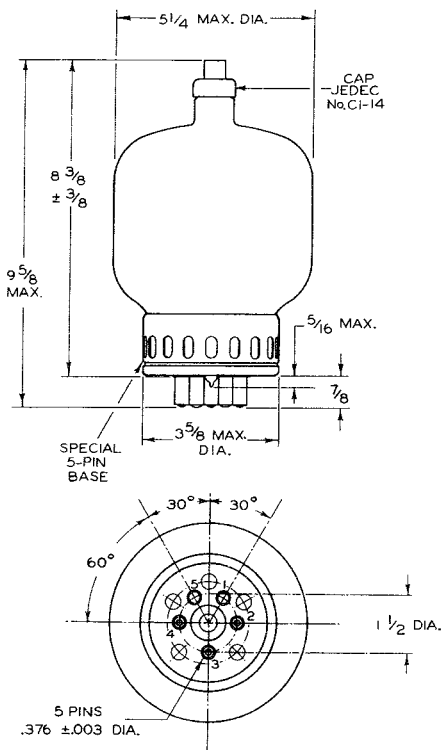
^a The filament voltage as measured at the filament pins, should be 7.5 volts. For long life, excursions from this value should not exceed ±5 per cent.

^b With external shield.

^c Continuous Commercial Service.

^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.





92CM-7930R1

DIMENSIONS IN INCHES

