

Beam Power Tube

Quick-Heating Filament
High Power Sensitivity
90 Watts CW Input (ICAS) up to 60 MHz
60 Watts CW Input (ICAS) at 175 MHz
**For use as an rf power
amplifier in communications equipment**

ELECTRICAL

Filament, Coated:

Voltage (AC or DC)	1.6 ± 10%	V
Current at 1.6 volts	3.2	A
Heating time	1	s
Transconductance ^a	6000	μmho
Mu-Factor ^a , Grid No.2 to Grid No.1	4	

Direct Interelectrode Capacitances:

Grid No.1 to plate	0.24 max.	pF
Grid No.1 to filament & grid No.3 & internal shield, base sleeve and grid No.2	11	pF
Plate to filament & grid No.3 & internal shield, base sleeve and grid No.2	8.5	pF

MECHANICAL

Operating Position	Vertical, or horizontal with plane of pins 3 and 7 vertical
Maximum Overall Length	3-13/16"
Seated Length	3-1/8" ± 1/8"
Maximum Diameter	1-21/32"
Bulb	T-12
Cap	Small (JEDEC No.C1-1)
Base	Small wafer octal 8-pin with sleeve (JEDEC Group 1, No.B8-150)
Bulb Temperature (At hottest point)	220 max. °C

**RF POWER AMPLIFIER & OSC. – CLASS C TELEGRAPHY^b
AND**
RF POWER AMPLIFIER – CLASS C FM TELEGRAPHY
Maximum ICAS Ratings, Absolute-Maximum Values:

	Up to 60 MHz
DC Plate Voltage	750 max. V
DC Grid-No.2 Voltage	250 max. V



DC Grid-No.1 Voltage	-150 max.	V
DC Plate Current	150 max.	mA
DC Grid-No.1 Current	4 max.	mA
Plate Input	90 max.	W
Grid-No.2 Input	3 max.	W
Plate Dissipation	25 max.	W

Typical Operation as Amplifier at 175 MHz

DC Plate Voltage	400	V
DC Grid-No.2 Voltage ^c	190	V
From a series resistor of	18000	Ω
DC Grid-No.1 Voltage ^d	-60	V
From a grid resistor of	30000	Ω
DC Plate Current	150	mA
DC Grid-No.2 Current	11	mA
DC Grid-No.1 Current (Approx.)	2	mA
Driving Power (Approx.)	4.5	W
Power Output (Approx.)	30	W

Maximum Circuit Values:

Grid-No.1 Circuit Resistance	30000 max.	Ω
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^a For plate volts = 200 V, grid No.2 volts = 200 V, and plate current = 100 mA.

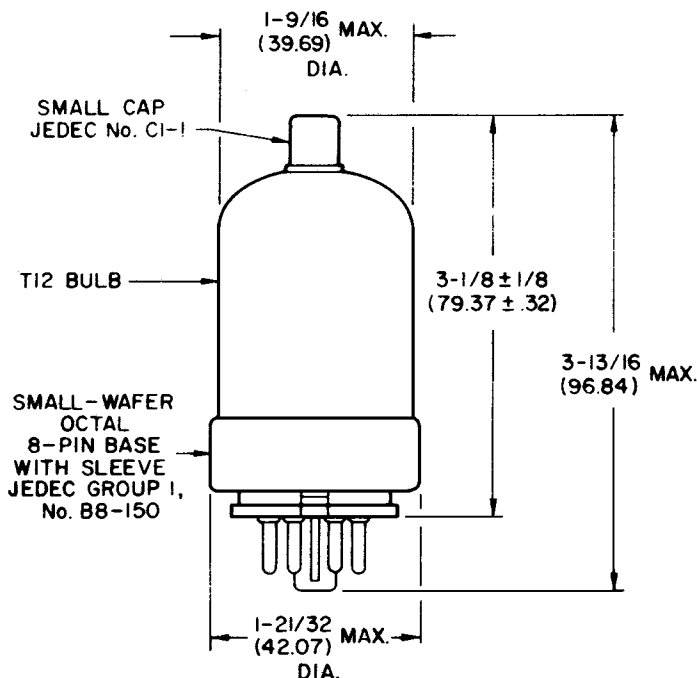
The following footnotes apply to the *RCA Transmitting Tube Operating Considerations* given at front of this section.

^b See *Classes of Service*.

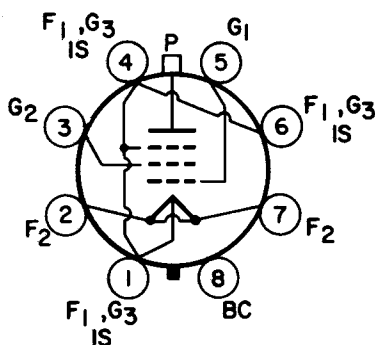
^c See *Electrical Considerations* - Grid-No.2 Voltage Supply.

^d See *Electrical Considerations* - Grid-No.1 Voltage Supply.

DIMENSIONAL OUTLINE – Dimensions In Inches (mm)



TERMINAL DIAGRAM (Bottom View)



Pin 1: Filament 1, Grid No.3, Internal Shield

Pin 2: Filament 2

Pin 3: Grid No.2

Pin 4: Same as Pin No.1

Pin 5: Grid No.1

Pin 6: Same as Pin No.1

Pin 7: Filament 2

Pin 8: Base Sleeve

Cap: Plate