



50C5

50C5

BEAM POWER TUBE

MINIATURE TYPE

Except for a different basing arrangement, which simplifies the problem of meeting Underwriters' Laboratories requirements in the design of ac/dc receivers, the 50C5 is similar to the miniature type 50B5.

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage.	50	ac or dc volts
Current.	0.15	amp

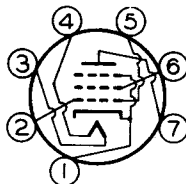
Direct Interelectrode Capacitances (Approx.):^o

Grid No.1 to plate	0.55	μf
Grid No.1 to cathode & grid No.3, grid No.2, and heater.	13	μf
Plate to cathode & grid No.3, grid No.2, and heater.	9	μf

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" ± 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	7CV

Pin 1 - Cathode,
Grid No.3
Pin 2 - Grid No.1
Pin 3 - Heater



Pin 4 - Heater
Pin 5 - Grid No.1
Pin 6 - Grid No.2
Pin 7 - Plate

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

PLATE VOLTAGE	135 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	117 max.	volts
PLATE DISSIPATION.	5.5 max.	watts
GRID-No.2 INPUT.	1.25 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	180 max.	volts
Heater positive with respect to cathode.	180 max.	volts
BULB TEMPERATURE (At hottest point)♦	250 max.	°C

^o Without external shield.

♦ High ambient temperature and shielding may necessitate a reduction in operating dissipation. When tube shields are used it is advisable to paint both inside and outside surfaces of tube shield a dull black and to provide ventilation slots to reduce operating temperature.

← Indicates a change.

50C5



50C5

BEAM POWER TUBE

Typical Operation and Characteristics:

Plate Voltage.	110	volts
Grid-No.2 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.	49	ma
Max.-Signal Plate Current.	50	ma
Zero-Signal Grid-No.2 Current.	4	ma
Max.-Signal Grid-No.2 Current	8.5	ma
Plate Resistance (Approx.)	1000	ohms
Transconductance	7500	μ mhos
Load Resistance.	2500	ohms
Total Harmonic Distortion.	9	%
Max.-Signal Power Output	1.9	watts

Maximum Circuit Values (For maximum rated conditions):

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

Curves shown under type 50B5 also apply to the 50C5