

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance 1 megohm

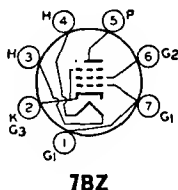
Pulse duration must not exceed 15% of one horizontal scanning cycle (10 microseconds).

• A bias resistor or other means is required to protect the tube in absence of excitation.

43	Refer to chart at end of section.
45	Refer to chart at end of section.
45Z3	Refer to chart at end of section.
45Z5GT	Refer to chart at end of section.
46	Refer to chart at end of section.
47	Refer to chart at end of section.
48	Refer to chart at end of section.
49	Refer to chart at end of section.
50	Refer to chart at end of section.
50A5	Refer to chart at end of section.

50B5**BEAM POWER TUBE**

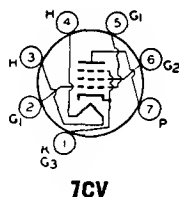
Miniature type used in output stage of compact ac/dc receivers. Outlines section, 5D; requires miniature 7-contact socket. Except for basing arrangement, type 50B5 is identical with miniature type 50C5.

**50C5**

25C5

BEAM POWER TUBE

Miniature type used in output stage of compact, ac/dc radio receivers. Outlines section, 5D; requires miniature 7-contact socket. This tube, like other power-handling tubes, should be adequately ventilated. Within its maximum ratings, type 50C5 is equivalent in performance to glass octal type 50L6GT. Type 25C5 is identical with type 50C5 except for heater ratings.



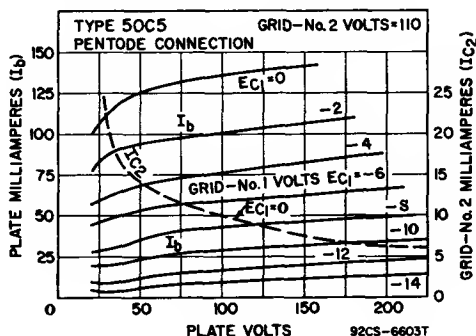
Heater Voltage (ac/dc)	25C5 25	50C5 50	volts
Heater Current	0.3	0.15	ampere
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):			
Grid No.1 to Plate		0.6	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		13	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		8.5	pF

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

Plate Voltage	150	volts
Grid-No.2 (Screen-Grid) Voltage	130	volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	7	watts
Grid-No.2 Input	1.4	watts
Bulb Temperature (At hottest point)	220	°C

TYPICAL OPERATION

Plate Voltage	120	volts
Grid-No.2 Voltage	110	volts
Grid-No.1 (Control-Grid) Voltage	-8	volts
Peak AF Grid-No.1 Voltage	8	volts
Zero-Signal Plate Current	49	mA
Maximum-Signal Plate Current	50	mA
Zero-Signal Grid-No.2 Current	4	mA
Maximum-Signal Grid-No.2 Current	8.5	mA
Plate Resistance (Approx.)	10000	ohms
Transconductance	7500	μ mhos
Load Resistance	2500	ohms
Total Harmonic Distortion	10	per cent
Maximum-Signal Power Output	2.3	watts
MAXIMUM CIRCUIT VALUES		
Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm



Installation and Application

The 50-volt heater is designed to operate under the normal conditions of line voltage variation without materially affecting the performance or serviceability of the 50C5. For operation of the 50C5 in series with other types having 0.15-ampere rating, the current in the heater circuit should be adjusted to 0.15 ampere for the normal supply voltage.

In a series-heater circuit of the "dc power line" type employing several 0.15-ampere types and one or two 50C5s, the heater(s) of the 50C5(s) should be placed on the positive side of the line. Under these conditions, heater-cathode voltage of the 50C5 must not exceed the value given under maximum ratings. In a series-heater circuit of the "universal" type employing rectifier tube 35W4, one or two 50C5s, and several 0.15-ampere types, it is recommended that the heater(s) of the 50C5(s) be placed in the circuit so that the higher values of heater-cathode bias will be impressed on the 50C5(s) rather than on the other 0.15-ampere types. This is accomplished by arranging the 50C5(s) on the side of the supply line which is connected to the cathode of the rectifier, i.e., the positive terminal of the rectified voltage supply. Between this side of the line and the 50C5(s), any necessary auxiliary resistance and the heater of the 35W4 are connected in series.

As a power amplifier (class A₁), the 50C5 is recommended for use either singly or in push-pull combination in the power-output stage of "ac/dc" receivers. The operating values shown under typical operation have been determined on the basis that grid-No. 1 current does not flow during any part of the input cycle.

Refer to chart at end of section.

50C6G