

## RCA-27 DETECTOR, AMPLIFIER

|                                     |                              |                  |
|-------------------------------------|------------------------------|------------------|
| Heater                              | Coated Uni-potential Cathode |                  |
| Voltage                             | 2.5                          | a-c or d-c volts |
| Current                             | 1.75                         | amp.             |
| Direct Interelectrode Capacitances: |                              |                  |
| Grid to Plate                       | 3.3                          | μf               |
| Grid to Cathode                     | 3.1                          | μf               |
| Plate to Cathode                    | 2.3                          | μf               |
| Maximum Overall Length              | ③                            | 4-1/4"           |
| Maximum Diameter                    |                              | 1-9/16"          |
| Bulb                                |                              | ST-12            |
| Base                                | ②                      ④     | Medium 5-Pin     |
| Pin 1-Heater                        |                              | Pin 4-Cathode    |
| Pin 2-Plate                         | ①                      ⑤     | Pin 5-Heater     |
| Pin 3-Grid                          |                              |                  |

### BOTTOM VIEW AMPLIFIER (Class A)

|   |       |      |       |      |                |
|---|-------|------|-------|------|----------------|
| Operating Conditions and Characteristics: |       |      |       |      |                |
| Heater*                                   | 2.5   | 2.5  | 2.5   | 2.5  | volts          |
| Plate                                     | 90    | 135  | 180   | 250  | 275 max. volts |
| Grid                                      | -6    | -9   | -13.5 | -21  | volts          |
| Amp. Fact.                                | 9     | 9    | 9     | 9    |                |
| Plate Res.                                | 11000 | 9000 | 9000  | 9250 | ohms           |
| Mut. Cond.                                | 820   | 1000 | 1000  | 975  | μmhos          |
| Plate Cur.                                | 2.7   | 4.5  | 5.0   | 5.2  | ma.            |

Grid-coupling resistor, if used, should not exceed 1.0 megohm.

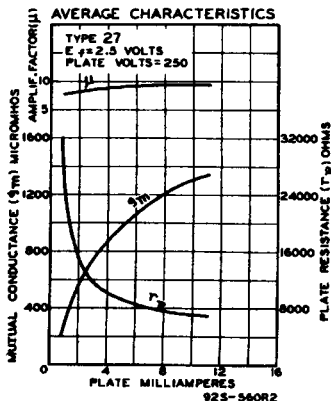
### DETECTOR

|                    |  |                   |         |
|--------------------|--|-------------------|---------|
| Typical Operation: | <u>Biased</u>                            | <u>Grid-Leak</u>  |         |
| Heater *           | 2.5    2.5                               | 2.5               | volts   |
| Plate              | 250    275# max.                         | 45                | volts   |
| Grid               | -30#    -33#                             | Return to Cathode | volts   |
| Plate Cur.°        | Adjusted to 0.2 ma. with no input signal |                   | -       |
| Grid Leak          |  | 1 to 5            | megohms |
| Grid Condenser     | -    -                                   | 0.00025           | μf      |

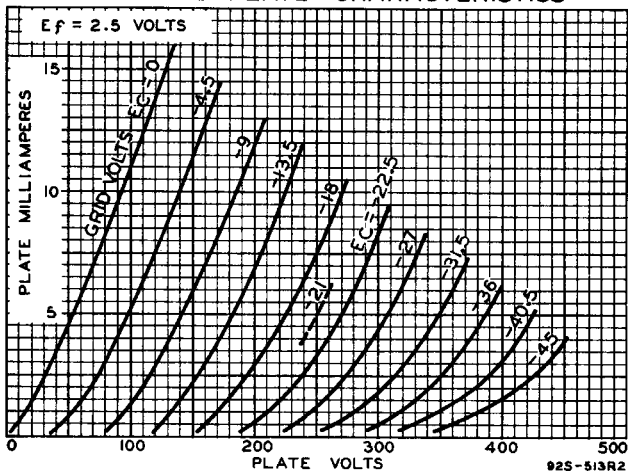
\* Max-Signal d-c plate current should be limited to 5.0 ma.

° Recommended practice is to connect the cathode directly to a mid-tap on the heater winding. If this practice is not followed, the potential difference between heater and cathode should be kept as low as possible.

# Approximate.



### AVERAGE PLATE CHARACTERISTICS



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