



IS4



IS4

**POWER AMPLIFIER PENTODE**

MINIATURE TYPE

|                        |        |                        |
|------------------------|--------|------------------------|
| Filament               | Coated |                        |
| Voltage                | 1.4    | d-c volts              |
| Current                | 0.1    | amp.                   |
| Maximum Overall Length |        | 2-1/8"                 |
| Maximum Seated Height  |        | 1-7/8"                 |
| Maximum Diameter       |        | 3/4"                   |
| Bulb                   |        | T-5-1/2                |
| Base <sup>Δ</sup>      |        | Miniature Button 7-Pin |
| Pin 1 - Filament -     |        | Pin 5 - Filament -     |
| Pin 2 - Plate          |        | Pin 6 - Plate          |
| Pin 3 - Grid           |        | Pin 7 - Filament +     |
| Pin 4 - Screen         |        |                        |
| Mounting Position      |        | Any                    |



BOTTOM VIEW (7AV)

AMPLIFIER

|                                                                               |      |      |                 |
|-------------------------------------------------------------------------------|------|------|-----------------|
| Plate Voltage                                                                 |      |      | 90 max. volts   |
| Screen Voltage                                                                |      |      | 67.5 max. volts |
| Total Max.-Signal Cathode Current                                             |      |      | 11 max. ma.     |
| Total Zero-Signal Cathode Current                                             |      |      | 9 max. ma.      |
| <b>Typical Operation and Characteristics - Class A<sub>1</sub> Amplifier:</b> |      |      |                 |
| Filament                                                                      | 1.4  | 1.4  | 1.4 d-c volts   |
| Plate                                                                         | 45   | 67.5 | 90 volts        |
| Screen                                                                        | 45   | 67.5 | 67.5 volts      |
| Grid                                                                          | -4.5 | -7   | -7 volts        |
| Peak A-F Grid Voltage                                                         | 4.5  | 7    | 7 volts         |
| Zero-Signal Plate Cur.                                                        | 3.8  | 7.2  | 7.4 ma.         |
| Zero-Signal Screen Cur.                                                       | 0.8  | 1.5  | 1.4 ma.         |
| Plate Res. (Approx.)                                                          | 0.1  | 0.1  | 0.1 megohm      |
| Transcond.                                                                    | 1250 | 1550 | 1575 μmhos      |
| Load Res.                                                                     | 8000 | 5000 | 8000 ohms       |
| Total Harmonic                                                                |      |      |                 |
| Distortion                                                                    | 12   | 10   | 12 %            |
| Max.-Sig. Power Output                                                        | 65   | 180  | 270 mw          |

<sup>Δ</sup> The center hole in sockets designed for this base provides for the possibility that this tube type may be manufactured with the exhaust-tube tip at the base end. For this reason, it is recommended that in equipment employing this tube type, no material be permitted to obstruct the socket hole.

154



IS4

# AVERAGE PLATE CHARACTERISTICS

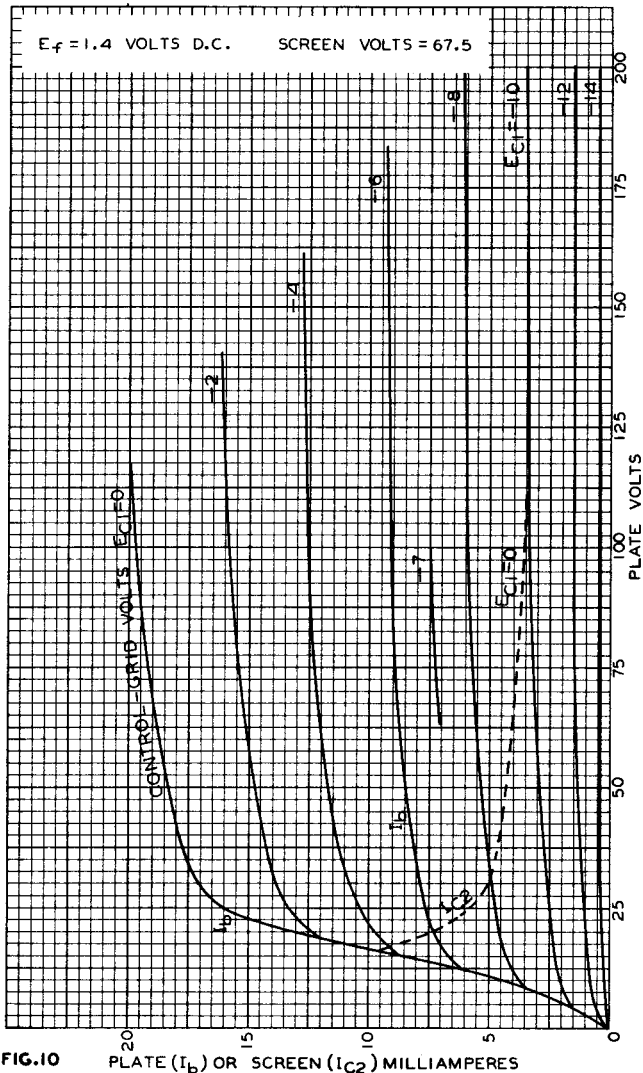


FIG.10 PLATE ( $I_b$ ) OR SCREEN ( $I_{c2}$ ) MILLIAMPERES

JAN. 26, 1942

RCA RADOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

92C-6157RI



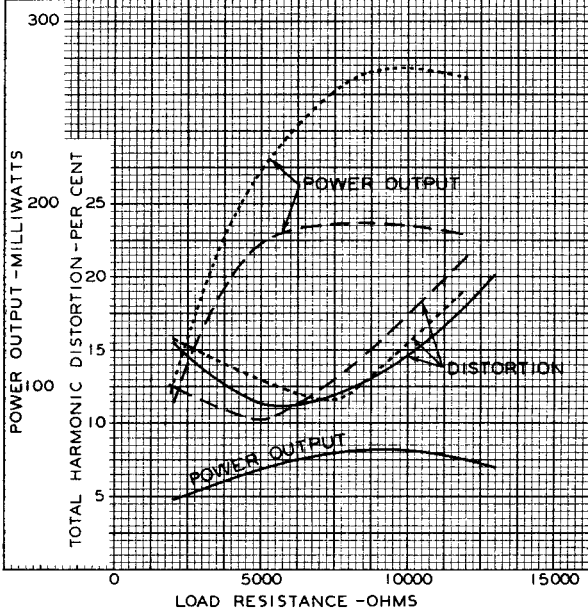
1S4

1S4

## OPERATION CHARACTERISTICS

 $E_f = 1.4$  VOLTS D.C.

| CURVE | PLATE VOLTS | SCREEN VOLTS | GRID VOLTS | SIGNAL VOLTS RMS |
|-------|-------------|--------------|------------|------------------|
| —     | 45          | 45           | -4.5       | 3.2              |
| - - - | 67.5        | 67.5         | -7         | 4.95             |
| ..... | 90          | 67.5         | -7         | 4.95             |

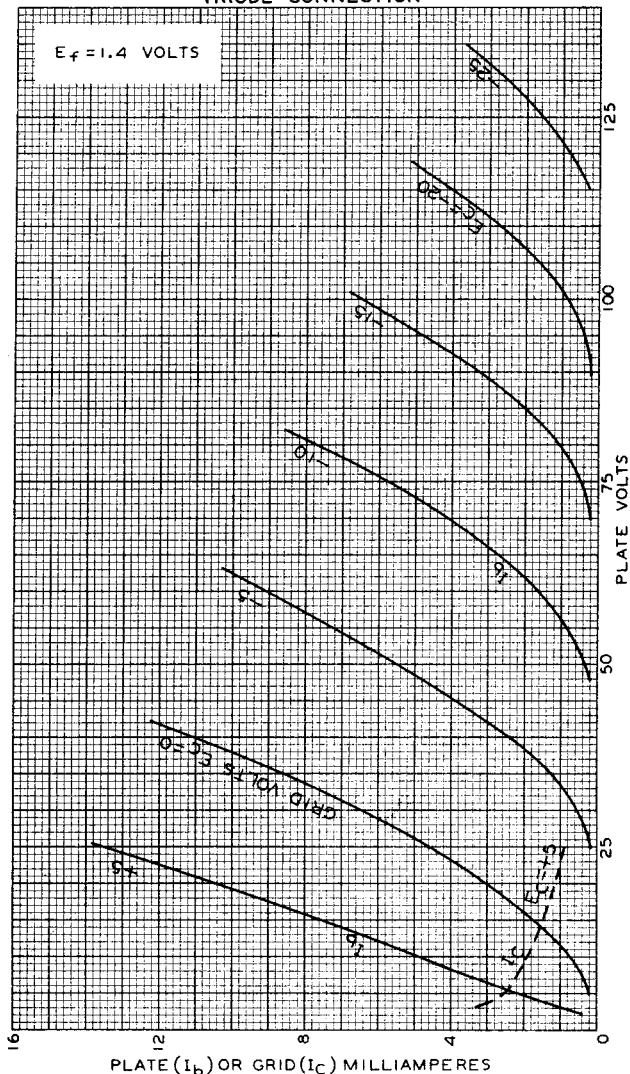


154



154

# AVERAGE PLATE CHARACTERISTICS TRIODE CONNECTION



DEC. 26, 1941

RCA RADOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

92C-6348