

|                                                  |      |      |          |
|--------------------------------------------------|------|------|----------|
| Peak AF Grid-No.1-to-Grid-No.1 Voltage .....     | 41   | 42   | volts    |
| Zero-Signal Plate Current .....                  | 60   | 88   | mA       |
| Maximum-Signal Plate Current .....               | 115  | 100  | mA       |
| Zero-Signal Grid-No.2 Current .....              | 8    | 12   | mA       |
| Maximum-Signal Grid-No.2 Current .....           | 18   | 16   | mA       |
| Effective Load Resistance (Plate-to-plate) ..... | 6600 | 6600 | ohms     |
| Total Harmonic Distortion .....                  | 2.5  | 3.5  | per cent |
| Maximum-Signal Power Output .....                | 23   | 21   | watts    |

\* Grid No.2 supply voltage is obtained from taps on the primary winding of the output transformer. The taps are located on each side of the center tap (B+) so as to apply 50 per cent of the plate signal voltage to the grid No.2 of each output tube.

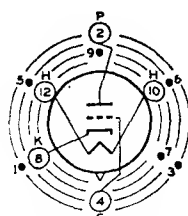
## 7895

INDUSTRIAL  
TYPE

## HIGH-MU TRIODE

Nuvistor type high-mu triode for use in a wide variety of industrial applications. Outlines section, 1; requires nuvistor socket.

|                                               |                |        |
|-----------------------------------------------|----------------|--------|
| Heater Voltage (ac/dc) .....                  | 6.3 $\pm 10\%$ | volts  |
| Heater Current .....                          | 0.135          | ampere |
| Peak Heater-Cathode Voltage .....             | $\pm 100$ max. | volts  |
| Direct Interelectrode Capacitances (Approx.): |                |        |
| Grid to Plate .....                           | 0.9            | pF     |
| Grid to Cathode, Shell, and Heater .....      | 4.2            | pF     |
| Plate to Cathode, Shell, and Heater .....     | 1.7            | pF     |
| Plate to Cathode .....                        | 0.22           | pF     |
| Heater to Cathode .....                       | 1.3            | pF     |



INDEX= LARGE LUG  
●= SHORT PIN -JC

12AQ

## Industrial Service

### MAXIMUM RATINGS (Absolute-Maximum Values)

For operation at any altitude

|                            |     |       |
|----------------------------|-----|-------|
| Plate Supply Voltage ..... | 330 | volts |
| Plate Voltage .....        | 110 | volts |
| Grid Voltage:              |     |       |
| Negative-bias value .....  | 55  | volts |
| Peak-positive value .....  | 2   | volts |
| Grid Current .....         | 2   | mA    |
| Plate Current .....        | 20  | mA    |
| Cathode Current .....      | 15  | mA    |
| Plate Dissipation .....    | 1   | watt  |

### MAXIMUM CIRCUIT VALUES

|                                  |     |        |
|----------------------------------|-----|--------|
| Grid-Circuit Resistance:*        |     |        |
| For fixed-bias operation .....   | 0.5 | megohm |
| For cathode-bias operation ..... | 1   | megohm |

\* For operation at metal-shell temperature up to 150°C.

## Class A<sub>1</sub> Amplifier

### CHARACTERISTICS

|                                                     |      |            |
|-----------------------------------------------------|------|------------|
| Plate Supply Voltage .....                          | 110  | volts      |
| Grid Supply Voltage .....                           | 0    | volts      |
| Cathode Resistor .....                              | 150  | ohms       |
| Amplification Factor .....                          | 64   |            |
| Plate Resistance (Approx.) .....                    | 6800 | ohms       |
| Transconductance .....                              | 9400 | $\mu$ mhos |
| Plate Current .....                                 | 7    | mA         |
| Grid Voltage (Approx.) for plate $\mu$ A = 10 ..... | -4   | volts      |

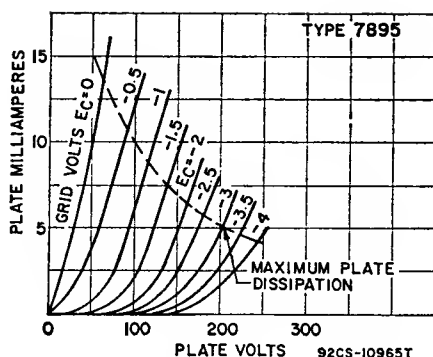
## Special Ratings & Performance Data

### SHOCK RATING

|                           |           |   |
|---------------------------|-----------|---|
| Impact Acceleration ..... | 1000 max. | g |
|---------------------------|-----------|---|

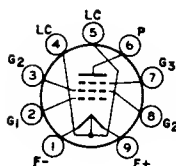
### FATIGUE RATING

|                                |          |   |
|--------------------------------|----------|---|
| Vibrational Acceleration ..... | 2.5 max. | g |
|--------------------------------|----------|---|



Refer to chart at end of section.

7898



9PB

## BEAM POWER TUBE

7905

INDUSTRIAL  
TYPE

Miniature quick-heating-filament beam power tube for use as an RF oscillator, amplifier and frequency multiplier in mobile communications equipment. Outlines section, 6E; requires miniature 9-contact socket.

|                                                     |                                                                              |              |
|-----------------------------------------------------|------------------------------------------------------------------------------|--------------|
| Operating Position                                  | Vertical, base up or down, or Horizontal with pins 2 and 8 in vertical plane |              |
| Filament Voltage                                    | 6.3 $\pm$ 10%                                                                | volts        |
| Filament Current                                    | 0.65                                                                         | ampere       |
| Heating Time                                        | Less than 1                                                                  | second       |
| Direct Interelectrode Capacitances:                 |                                                                              |              |
| Grid No.1 to Plate                                  | 0.14 max.                                                                    | pF           |
| Grid No.1 to Filament, Grid No.3, and Grid No.2     | 8.5                                                                          | pF           |
| Plate to Filament, Grid No.3, and Grid No.2         | 5.5                                                                          | pF           |
| Bulb Temperature (At hottest point on bulb surface) | 225 max.                                                                     | $^{\circ}$ C |

## MAXIMUM CIRCUIT VALUES

|                              |     |        |
|------------------------------|-----|--------|
| Grid-No.1-Circuit Resistance | 0.1 | megohm |
|------------------------------|-----|--------|

Class A<sub>1</sub> Amplifier

## CHARACTERISTICS

|                                   |                              |            |
|-----------------------------------|------------------------------|------------|
| Plate Voltage                     | 200                          | volts      |
| Grid No.3                         | Connected to pin 1 at socket |            |
| Grid-No.2 Voltage                 | 185                          | volts      |
| Grid-No.1 Voltage                 | —6                           | volts      |
| Mu-Factor, Grid No.2 to Grid No.1 | 11.5                         |            |
| Transconductance                  | 6700                         | $\mu$ mbos |
| Plate Current                     | 36                           | mA         |
| Grid-No.2 Current                 | 2.5                          | mA         |

RF Power Amplifier & Oscillator—Class C Telegraphy<sup>a</sup>  
and

## RF Power Amplifier—Class C FM Telephony

MAXIMUM ICAS<sup>b</sup> RATINGS (Absolute-Maximum Values)

|                                           |                            |      |       |
|-------------------------------------------|----------------------------|------|-------|
| DC Plate Voltage                          | Up to 175 MHz              | 300  | volts |
| Grid No.3 (Suppressor Grid)               | Connect to pin 1 at socket |      |       |
| DC Grid-No.2 (Screen-Grid) Supply Voltage |                            | 300  | volts |
| DC Grid-No.2 Voltage                      |                            | 250  | volts |
| DC Grid-No.1 (Control-Grid) Voltage       |                            | —125 | volts |
| DC Plate Current                          |                            | 60   | mA    |
| DC Grid-No.2 Current                      |                            | 10   | mA    |