

# Sharp-Cutoff Pentode

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:

|                                 |                   |       |
|---------------------------------|-------------------|-------|
| Voltage (AC or DC) . . . . .    | 12.6 <sup>▲</sup> | volts |
| Current at 12.6 volts . . . . . | 0.15 <sup>●</sup> | amp   |

Direct Interelectrode Capacitances:★

|                                                                                        |            |     |
|----------------------------------------------------------------------------------------|------------|-----|
| Grid No.1 to plate. . . . .                                                            | 0.007 max. | μmf |
| Grid No.1 to cathode, grid No.3,<br>grid No.2, internal shield, and<br>heater. . . . . | 6          | μmf |
| Plate to cathode, grid No.3,<br>grid No.2, internal shield, and<br>heater. . . . .     | 6.5        | μmf |

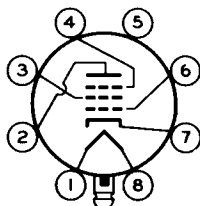
### Characteristics, Class A<sub>1</sub> Amplifier:

|                                                                    |                                       |      |        |
|--------------------------------------------------------------------|---------------------------------------|------|--------|
| Plate Supply Voltage. . . . .                                      | 100                                   | 250  | volts  |
| Grid No.3 . . . . .                                                | <i>Connected to cathode at socket</i> |      |        |
| Internal Shield . . . . .                                          | <i>Connected to cathode at socket</i> |      |        |
| Grid-No.2 Supply Voltage. . . . .                                  | 100                                   | 100  | volts  |
| Grid-No.1 Supply Voltage. . . . .                                  | -1                                    | -3   | volts  |
| Cathode Resistor. . . . .                                          | 130                                   | 100  | ohms   |
| Plate Resistance (Approx.) . . . . .                               | 0.325                                 | ◆    | megohm |
| Transconductance. . . . .                                          | 2275                                  | 1575 | μmhos  |
| Plate Current . . . . .                                            | 5.7                                   | 2.2  | ma     |
| Grid No.2 Current . . . . .                                        | 1.8                                   | 0.7  | ma     |
| Grid-No.1 Voltage (Approx.) for<br>cathode-current cutoff. . . . . | -7                                    | -7   | volts  |

### Mechanical:

|                                             |                               |
|---------------------------------------------|-------------------------------|
| Operating Position. . . . .                 | Any                           |
| Maximum Overall Length. . . . .             | 2-25/32"                      |
| Maximum Seated Length . . . . .             | 2-1/4"                        |
| Maximum Diameter. . . . .                   | 1-3/16"                       |
| Dimensional Outline . . . . .               | See <i>General Section</i>    |
| Bulb. . . . .                               | T9                            |
| Base. . . . .                               | Lock-in 8-Pin (JEDEC No.D8-1) |
| Basing Designation for BOTTOM VIEW. . . . . | 8V                            |

Pin 1 - Heater  
Pin 2 - Plate  
Pin 3 - Grid No.2  
Pin 4 - Grid No.3  
Pin 5 - Internal  
Shield



Pin 6 - Grid No.1  
Pin 7 - Cathode  
Pin 8 - Heater

Plug - Base  
Shell

### AMPLIFIER — Class A<sub>1</sub>

#### Maximum Ratings, Design-Center Values:

|                                                     |                                     |       |
|-----------------------------------------------------|-------------------------------------|-------|
| PLATE VOLTAGE . . . . .                             | 300 max.                            | volts |
| GRID No.3 (SUPPRESSOR GRID) . . . . .               | <i>Connect to cathode at socket</i> |       |
| GRID-No.2 (SCREEN-GRID) SUPPLY<br>VOLTAGE . . . . . | 300 max.                            | volts |



# 14C7

|                                            |          |       |
|--------------------------------------------|----------|-------|
| GRID-No.2 VOLTAGE. . . . .                 | 100 max. | volts |
| GRID-No.1 (CONTROL-GRID) VOLTAGE:          |          |       |
| Positive-bias value. . . . .               | 0 max.   | volts |
| GRID-No.2 INPUT. . . . .                   | 0.1 max. | watt  |
| PLATE DISSIPATION. . . . .                 | 1 max.   | watt  |
| PEAK HEATER-CATHODE VOLTAGE:               |          |       |
| Heater negative with respect to cathode. . | 90 max.  | volts |
| Heater positive with respect to cathode. . | 90 max.  | volts |

- ▲ Nominal voltage = 14 volts.
- Nominal current = 0.16 ampere.
- ★ With external shield JEDEC No.308 connected to cathode.
- ◆ Greater than 1 megohm.

# 14F7

## High-Mu Twin Triode

*The 14F7 is the same as the 7F7 except for the following items:*

Heater, for Unipotential Cathodes:

|                                |                   |       |
|--------------------------------|-------------------|-------|
| Voltage (AC or DC) . . . . .   | 12.6 <sup>▲</sup> | volts |
| Current at 12.6 volts. . . . . | 0.15 <sup>●</sup> | amp   |

# 14F8

## Medium-Mu Twin Triode

*The 14F8 is the same as the 7F8 except for the following items:*

Heater, for Unipotential Cathodes:

|                                |                   |       |
|--------------------------------|-------------------|-------|
| Voltage (AC or DC) . . . . .   | 12.6 <sup>▲</sup> | volts |
| Current at 12.6 volts. . . . . | 0.15 <sup>●</sup> | amp   |

- ▲ Nominal voltage = 14 volts.
- Nominal current = 0.16 ampere.

