

## High-Mu Triode

## 7-PIN MINIATURE TYPE

## GENERAL DATA

## Electrical:

Heater, for Unipotential Cathode:

|                              |      |       |
|------------------------------|------|-------|
| Voltage (AC or DC) . . . . . | 6.3  | volts |
| Current . . . . .            | 0.18 | amp   |

Direct Interelectrode Capacitances:

|                                                           | <i>Without<br/>External<br/>Shield</i> | <i>With<br/>External<br/>Shield<sup>o</sup></i> |                  |
|-----------------------------------------------------------|----------------------------------------|-------------------------------------------------|------------------|
| Grid to plate . . . . .                                   | 0.38                                   | 0.36                                            | $\mu\mu\text{f}$ |
| Grid to cathode, internal<br>shield, and heater. . . . .  | 4.4                                    | 4.4                                             | $\mu\mu\text{f}$ |
| Plate to cathode, internal<br>shield, and heater. . . . . | 3                                      | 4                                               | $\mu\mu\text{f}$ |
| Grid to heater. . . . .                                   | 0.28 max.                              | 0.28 max.                                       | $\mu\mu\text{f}$ |
| Plate to cathode. . . . .                                 | 0.24                                   | 0.2 <sup>•</sup>                                | $\mu\mu\text{f}$ |
| Cathode to grid . . . . .                                 | 3.1                                    | 3.1 <sup>•</sup>                                | $\mu\mu\text{f}$ |
| Heater to cathode . . . . .                               | 2.5                                    | 2.5 <sup>•</sup>                                | $\mu\mu\text{f}$ |

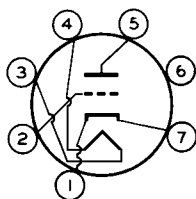
Characteristics, Class A<sub>1</sub> Amplifier:

|                                                                                    |       |                  |
|------------------------------------------------------------------------------------|-------|------------------|
| Plate Voltage . . . . .                                                            | 200   | volts            |
| Grid Voltage. . . . .                                                              | -1.2  | volts            |
| Amplification Factor. . . . .                                                      | 80    |                  |
| Plate Resistance (Approx.). . . . .                                                | 8000  | ohms             |
| Transconductance. . . . .                                                          | 10500 | $\mu\text{mhos}$ |
| Plate Current . . . . .                                                            | 10    | ma               |
| Grid Voltage (Approx.) for<br>transconductance ( $\mu\text{mhos}$ ) = 500. . . . . | -3.8  | volts            |
| Grid Voltage (Approx.) for<br>transconductance ( $\mu\text{mhos}$ ) = 100. . . . . | -5.6  | volts            |

## Mechanical:

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Operating Position. . . . .                            | Any                                           |
| Maximum Overall Length. . . . .                        | 2-1/8"                                        |
| Maximum Seated Length . . . . .                        | 1-7/8"                                        |
| Length, Base Seat to Bulb Top (Excluding tip). . . . . | 1-1/2" $\pm$ 3/32"                            |
| Diameter. . . . .                                      | 0.650" to 0.750"                              |
| Dimensional Outline . . . . .                          | See <i>General Section</i>                    |
| Bulb. . . . .                                          | T5-1/2                                        |
| Base. . . . .                                          | Small-Button Miniature 7-Pin (JEDEC No. E7-1) |
| Basing Designation for BOTTOM VIEW. . . . .            | 7FP                                           |

Pin 1 - Cathode  
Pin 2 - Grid  
Pin 3 - Heater  
Pin 4 - Heater



Pin 5 - Plate  
Pin 6 - Internal  
Shield  
Pin 7 - Cathode

← Indicates a change.



# 6ER5

→ **AMPLIFIER — Class A<sub>1</sub>**

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

|                                           |          |       |
|-------------------------------------------|----------|-------|
| PLATE VOLTAGE . . . . .                   | 250 max. | volts |
| GRID VOLTAGE:                             |          |       |
| Negative-bias value . . . . .             | 50 max.  | volts |
| CATHODE CURRENT . . . . .                 | 20 max.  | ma    |
| PLATE DISSIPATION . . . . .               | 2.2 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE:              |          |       |
| Heater negative with respect to cathode . | 100 max. | volts |
| Heater positive with respect to cathode . | 100 max. | volts |

**Maximum Circuit Values:**

|                                   |        |        |
|-----------------------------------|--------|--------|
| Grid-Circuit Resistance . . . . . | 1 max. | megohm |
|-----------------------------------|--------|--------|

- With external shield JEDEC No.316 connected to cathode except as noted.
- With external shield JEDEC No.316 connected to ground.

→ Indicates a change.