

# 6ES5

## High-Mu Triode

### 7-PIN MINIATURE TYPE

#### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . .	6.3 ± 10%	volts
Current at 6.3 volts . . . . .	0.2	amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield<sup>a</sup></i>	
Grid to plate . . . . .	0.5 max.	0.5 max.	μf
Grid to cathode, internal shield, and heater. . . . .	3.2	3.2	μf
Plate to cathode, internal shield, and heater. . . . .	3.2	4	μf

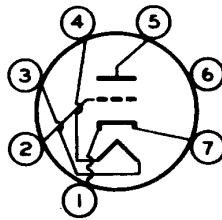
#### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Voltage . . . . .	200	volts
Grid Voltage . . . . .	-1	volt
Amplification Factor . . . . .	75	
Plate Resistance (Approx.) . . . . .	8000	ohms
Transconductance . . . . .	9000	μmhos
Plate Current . . . . .	10	ma
Grid Voltage (Approx.) for plate $\mu_a = 100$ . . . . .	-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" ± 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

#### AMPLIFIER — Class A<sub>1</sub>

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

PLATE VOLTAGE . . . . .	250 max.	volts
GRID VOLTAGE:		
Positive-bias value . . . . .	0 max.	volts



RADIO CORPORATION OF AMERICA  
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CATHODE CURRENT . . . . . 22 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

<sup>a</sup> With external shield JEDEC No.316 connected to cathode.

