

## Semiremote-Cutoff Pentode

### 9-PIN MINIATURE TYPE

#### GENERAL DATA

#### Electrical:

Heater Characteristics and Ratings (*Design-Center Values*):

Voltage (AC or DC) . . . . .	6.3 ± 0.6	volts
Current at heater volts = 6.3 . . . . .	0.300	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode . . . . .	150 max.	volts
Heater positive with respect to cathode . . . . .	150 max.	volts

Direct Interelectrode Capacitances:<sup>a</sup>

Grid No.1 to plate . . . . .	0.005 max.	μf
Grid No.1 to cathode, grid No.3, grid No.2, internal shield, and heater . . . . .	9	μf
Plate to cathode, grid No.3, grid No.2, internal shield, and heater . . . . .	3	μf

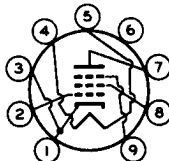
#### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Voltage . . . . .	200	volts
Grid No.3 . . . . .	<i>Connected to cathode at socket</i>	
Grid-No.2 Voltage . . . . .	90	volts
Grid-No.1 Voltage . . . . .	-2	volts
Plate Resistance (Approx.) . . . . .	0.5	megohm
Transconductance . . . . .	12500	μmhos
Plate Current . . . . .	12	ma
Grid-No.2 Current . . . . .	4.5	ma

#### Mechanical:

Operating Position . . . . .	Any
Type of Cathode . . . . .	Coated Unipotential
Maximum Overall Length . . . . .	2-13/32"
Maximum Seated Length . . . . .	2-5/32"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	1-25/32" ± 3/32"
Diameter . . . . .	0.750" to 0.875"
Bulb . . . . .	T6-1/2
Base . . . . .	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW . . . . .	9AQ

- Pin 1 - Cathode
- Pin 2 - Grid No.1
- Pin 3 - Cathode
- Pin 4 - Heater
- Pin 5 - Heater



- Pin 6 - Internal Shield
- Pin 7 - Plate
- Pin 8 - Grid No.2
- Pin 9 - Grid No.3



# 6EH7

## AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Center Values:

PLATE SUPPLY VOLTAGE . . . . .	550 max.	volts
PLATE VOLTAGE . . . . .	250 max.	volts
GRID No.3 (SUPPRESSOR GRID) . . .	<i>Connect to cathode at socket</i>	
GRID No.2 (SCREEN-GRID) SUPPLY VOLTAGE . . .	550 max.	volts
GRID-No.2 VOLTAGE . . . . .	250 max.	volts
CATHODE CURRENT . . . . .	20 max.	ma
GRID-No.2 INPUT . . . . .	0.65 max.	watt
PLATE DISSIPATION . . . . .	2.5 max.	watts

### Typical Operation:

Plate Voltage . . . . .	200	200	200	200	volts
Grid No.3 . . . . .	<i>Connected to cathode at socket</i>				
Grid-No.2 Supply Voltage . . .	200	200	200	200	volts
Grid-No.2 Series Resistor .	22000	22000	22000	22000	ohms
Grid-No.1 Voltage . . . . .	-19.5	-9.5	-6.5	-2	volts
Transconductance . . . . .	125	625	1250	12500	$\mu$ mhos
RMS Grid-No.1 Voltage for cross-modulation factor = 0.01 . . . . .	450	160	100	-	mv

### Maximum Circuit Values:

Grid-No.1-Circuit Resistance . . . . .	1 max.	megohm
--	--------	--------

<sup>a</sup> without external shield.

