

**6AH6**

**Description and Rating**

**RADIO-FREQUENCY AMPLIFIER PENTODE**

**GENERAL DESCRIPTION**

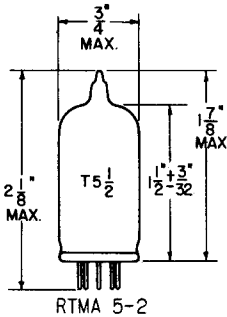
Principal Application: The 6AH6 is a miniature sharp-cutoff pentode. Its high transconductance and

low input and output capacitances adapt it to use as a wide-band amplifier or as a reactance tube.

Cathode: . . . . . Coated Unipotential  
 Heater Voltage (A-C or D-C) . . . . . 6.3 Volts  
 Heater Current . . . . . 0.45 Ampere  
 Envelope: . . . . . T-5½, Glass  
 Base: . . . . . E7-1, Miniature Button 7-Pin  
 Mounting Position: . . . . . Any

Direct Interelectrode Capacitances:  
 without Shield with Shield\*  
 Grid 1 to Plate (Max) 0.030 . . . 0.020 μμf  
 Input . . . . . 10 . . . 10 μμf  
 Output . . . . . 2.0 . . . 3.6 μμf

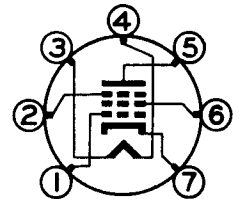
**PHYSICAL DIMENSIONS**



**TERMINAL CONNECTIONS**

- Pin 1 - Grid Number 1
- Pin 2 - Grid Number 3 (Suppressor)
- Pin 3 - Heater
- Pin 4 - Heater
- Pin 5 - Plate
- Pin 6 - Grid Number 2 (Screen)
- Pin 7 - Cathode

**BASING DIAGRAM**



RTMA 7CC  
BOTTOM VIEW

**DESIGN CENTER VALUES:**

Plate Voltage . . . . .	300	Volts
Screen Supply Voltage . . . . .	300	Volts
Screen Voltage . . . . .	150	Volts
Plate Dissipation . . . . .	3.2	Watts
Screen Dissipation . . . . .	0.4	Watt
Cathode Current . . . . .	13	Milliamperes
Heater-Cathode Voltage . . . . .	90	Volts

**MAXIMUM RATINGS**

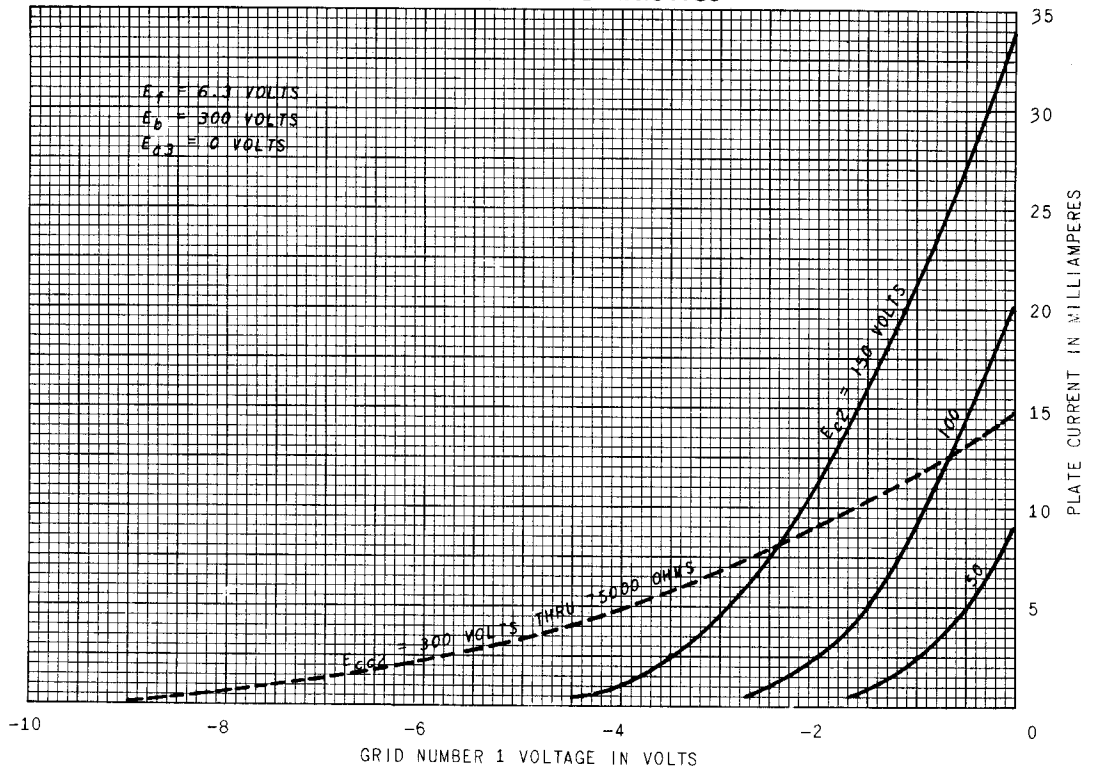
**CHARACTERISTICS AND TYPICAL OPERATION**

	Pentode Connection	Triode Connection**	
Plate Voltage . . . . .	300	150	Volts
Suppressor Voltage* . . . . .	0	---	Volts
Screen Voltage . . . . .	150	---	Volts
Cathode Bias Resistor . . . . .	160	160	Ohms
Amplification Factor . . . . .	---	40	
Plate Resistance (Approx) . . . . .	0.5	0.0036	Megohm
Transconductance . . . . .	9000	11000	Micromhos
Plate Current . . . . .	10	12.5	Milliamperes
Screen Current . . . . .	2.5	---	Milliamperes
Grid Number 1 Voltage (Approx) for I <sub>b</sub> = 10 Microamperes . . . . .	-7	-7	Volts

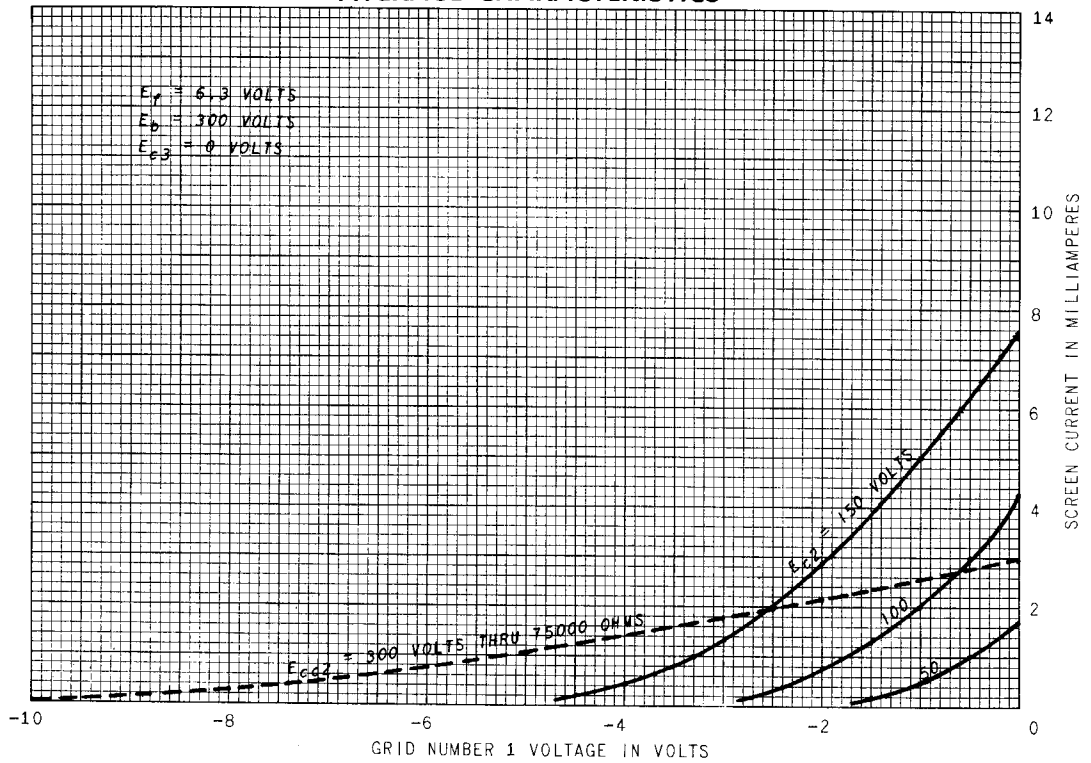
# With external shield #316 connected to pin 7  
 \* Pin 2 connected to pin 7 at socket  
 \*\* For triode connection, connect grids 2 and 3 to plate.

Note: Grid number 3 has practically no control characteristics, and it is not intended to be used as a control electrode. Its transconductance to the plate approximates 2 micromhos and the mu is 0.7 to 1.0.

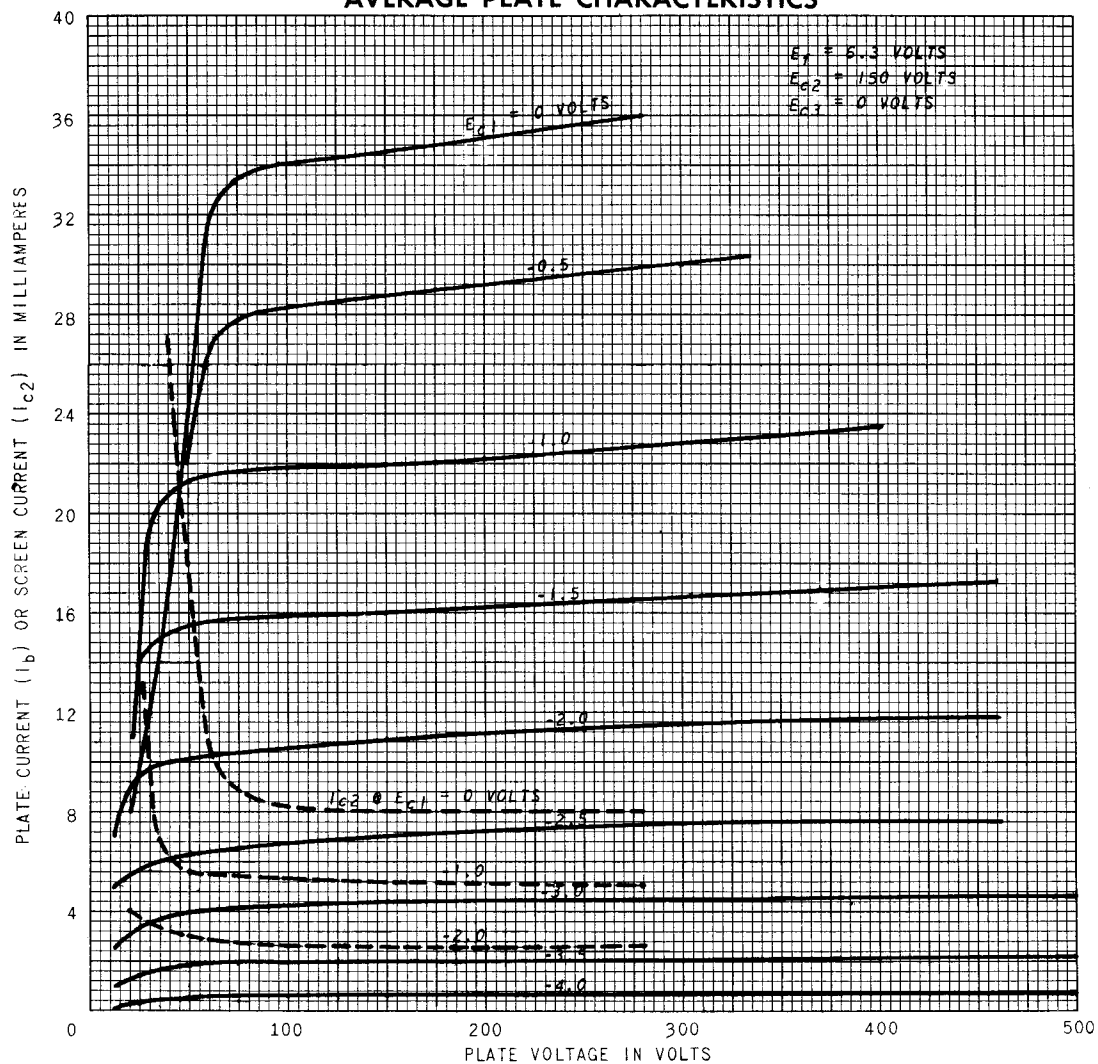
### AVERAGE CHARACTERISTICS



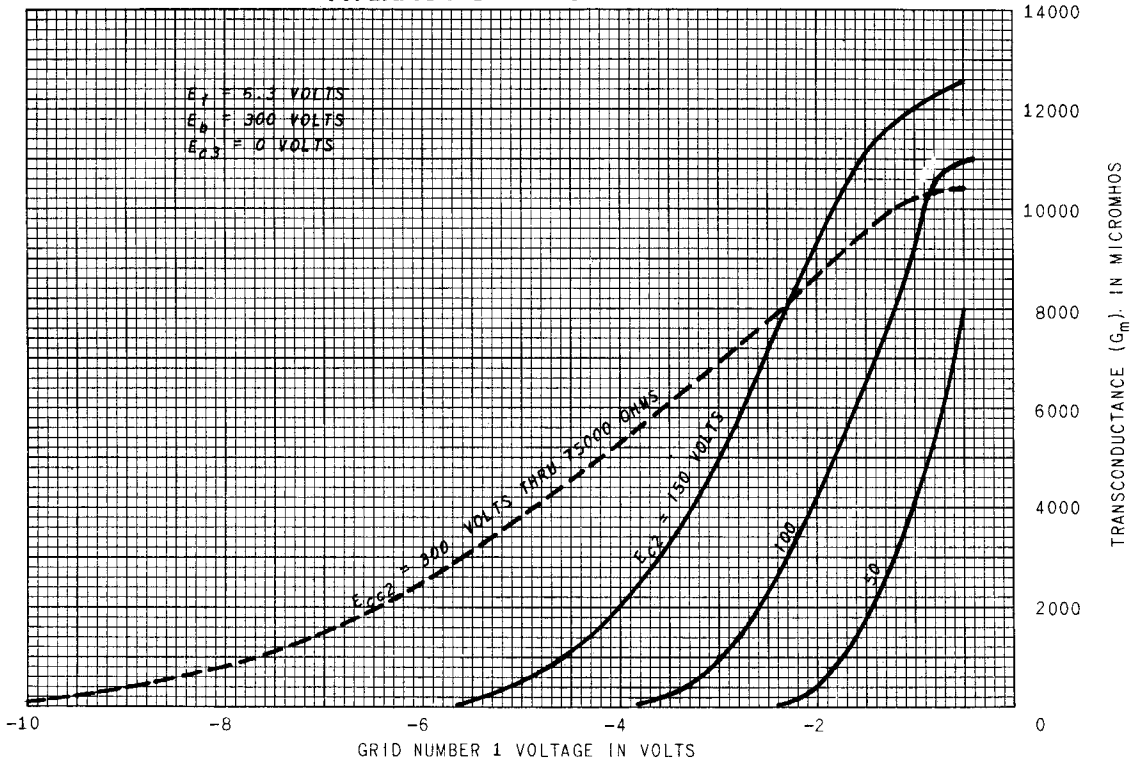
### AVERAGE CHARACTERISTICS



### AVERAGE PLATE CHARACTERISTICS



### AVERAGE CHARACTERISTICS



Tube Divisions, Electronics Department



Schenectady, N. Y.