

6AG5

Description and Rating

RADIO-FREQUENCY AMPLIFIER PENTODE

GENERAL DESCRIPTION

Principal Application: The 6AG5 is a miniature sharp-cutoff pentode designed for use as an intermediate-frequency amplifier or radio-frequency amplifier up to frequencies of approximately 400 mega-

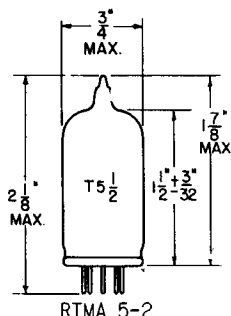
Cathode: Coated Unipotential
Heater Voltage (A-C or D-C) 6.3 Volts
Heater Current 0.3 Ampere
Envelope: T-5½ Glass
Base: E7-1, Miniature Button 7-Pin
Mounting Position: Any

cycles. The tube features high transconductance and low input and output capacitances. The use of two cathode leads facilitates isolation of the input and output circuits and thus minimizes degeneration.

Direct Interelectrode Capacitances:

		With Shield*		Without Shield	
Pentode Connection					
Grid 1 to Plate (Max)	0.020	. . .	0.030	$\mu\mu\text{f}$	
Input	6.6	. . .	6.5	$\mu\mu\text{f}$	
Output	3.1	. . .	1.8	$\mu\mu\text{f}$	
Triode Connection*					
Grid to Plate	2.5	. . .	2.5	$\mu\mu\text{f}$	
Input	3.6	. . .	3.6	$\mu\mu\text{f}$	
Output	4.3	. . .	3.0	$\mu\mu\text{f}$	

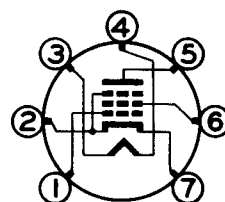
PHYSICAL DIMENSIONS



TERMINAL CONNECTIONS

- Pin 1 - Grid Number 1
- Pin 2 - Cathode, Internal Shield, and Grid Number 3
- Pin 3 - Heater
- Pin 4 - Heater
- Pin 5 - Plate
- Pin 6 - Grid Number 2 (Screen)
- Pin 7 - Cathode, Internal Shield, and Grid Number 3

BASING DIAGRAM



RTMA 7BD
BOTTOM VIEW

DESIGN CENTER VALUES:

	Triode Connection*		Pentode Connection		
Plate Voltage	300		300		Volts
Screen Supply Voltage	---		300		Volts
Screen Voltage	---		150		Volts
Positive D-C Grid Number 1 Voltage	0		0		Volts
Plate Dissipation	2.5		2.0		Watts
Screen Dissipation	---		0.5		Watt
Heater-Cathode Voltage	90		90		Volts

MAXIMUM RATINGS

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A₁ AMPLIFIER

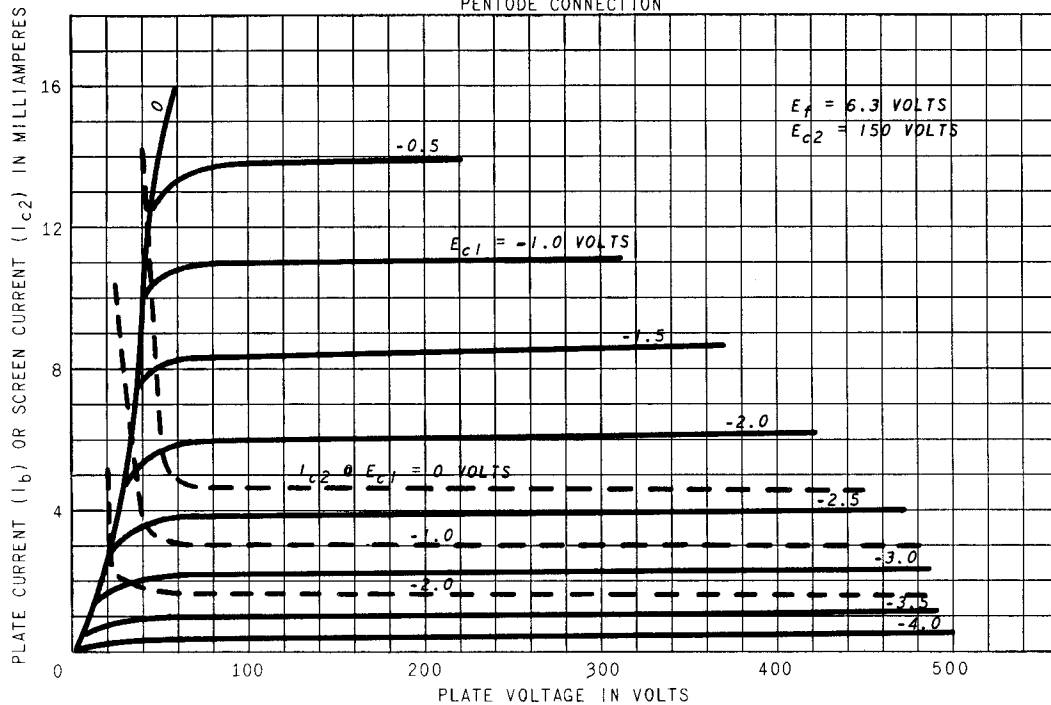
	Triode Connection*		Pentode Connection		
Plate Voltage	250	180	100	125	250 Volts
Screen Voltage	---	---	100	125	150 Volts
Cathode Bias Resistor	820	330	180	100	180 Ohms
Amplification Factor	42	45	---	---	---
Plate Resistance (Approx)	0.01	0.008	0.6	0.5	0.8 Megohm
Transconductance	3800	5700	4500	5100	5000 Micromhos
Plate Current	5.5	7.0	4.5	7.2	6.5 Milliamperes
Screen Current	---	---	1.4	2.1	2.0 Milliamperes
Grid Number 1 Voltage (Approx) for I _b = 10 Microamperes	---	---	-5	-6	-8 Volts

With external shield #316 connected to pin 7

* For triode connection, connect grid 2 to plate.

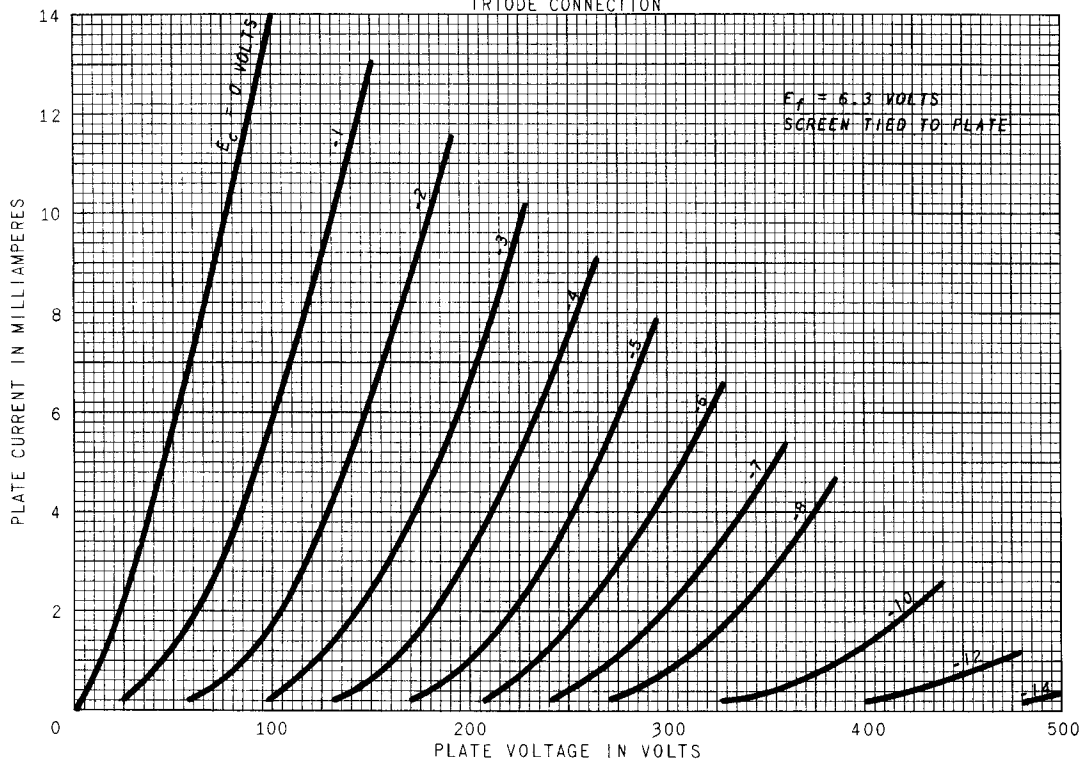
AVERAGE PLATE CHARACTERISTICS

PENTODE CONNECTION



AVERAGE PLATE CHARACTERISTICS

TRIODE CONNECTION



Tube Divisions, Electronics Department

GENERAL  **ELECTRIC**

Schenectady, N. Y.