

6AS6

Description and Rating

RADIO-FREQUENCY-AMPLIFIER PENTODE

GENERAL DESCRIPTION

Principal Application: The 6AS6 is a miniature sharp-cut-off pentode whose control grid and suppressor grid can be used as independent control elements.

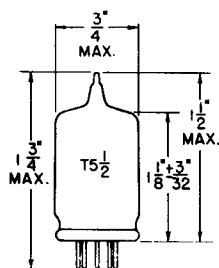
Cathode: Coated Unipotential
Heater Voltage (A-C or D-C) 6.3 Volts
Heater Current 0.175 Ampere
Envelope: T-5½ Glass
Base: E7-1, Miniature Button 7-Pin
Mounting Position: Any

The 6AS6 is suitable for use in gated amplifiers, gain-controlled amplifiers, delay circuits, and mixer circuits.

Direct Interelectrode Capacitances:

Grid 1 to Plate (Max)	0.02	μf
Input (Grid 1 to All)	4.0	μf
Input (Grid 3 to All)	3.4	μf
Output	3.0	μf
Coupling (Grid 1 to Grid 3)(Max)	0.15	μf

PHYSICAL DIMENSIONS

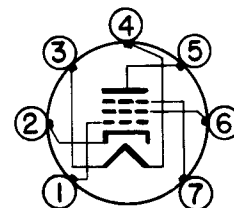


RMA 5-1

TERMINAL CONNECTIONS

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

BASING DIAGRAM



RMA 7CM
BOTTOM VIEW

DESIGN CENTER VALUES:

Plate Voltage	180	Volts
Screen Voltage	140	Volts
Positive Suppressor Grid Voltage	27	Volts
Plate Dissipation	1.7	Watts
Screen Dissipation	0.75	Watt
Total Cathode Current	18	Milliamperes
Heater-Cathode Voltage	90	Volts
Bulb Temperature	120	°C

MAXIMUM RATINGS

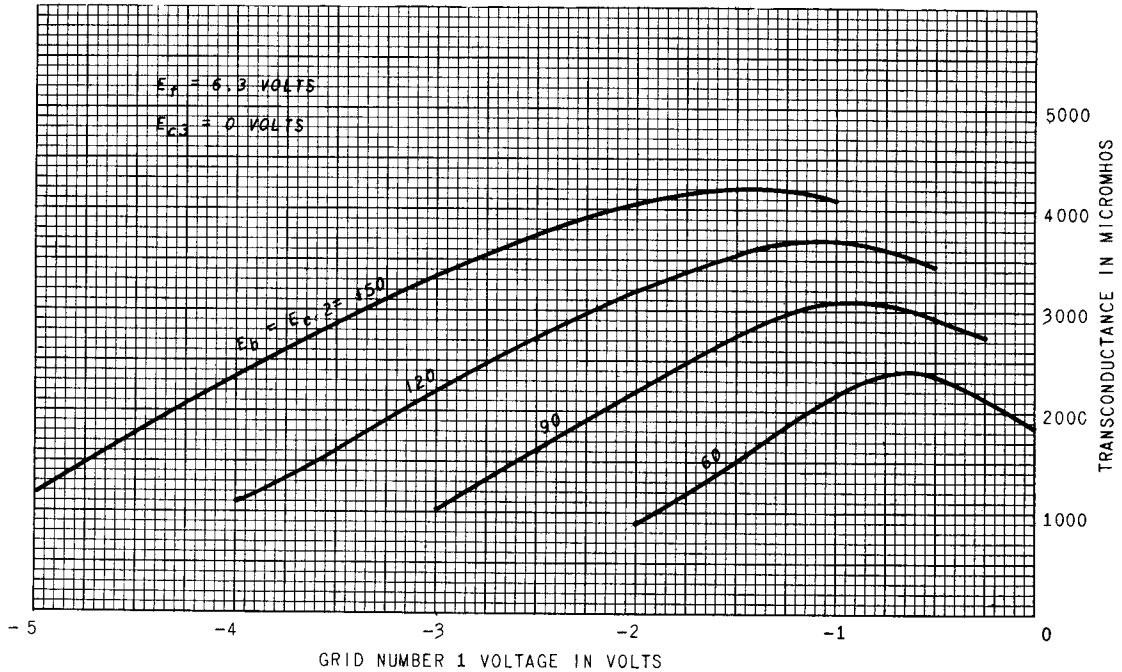
CLASS A₁ AMPLIFIER

CHARACTERISTICS AND TYPICAL OPERATION

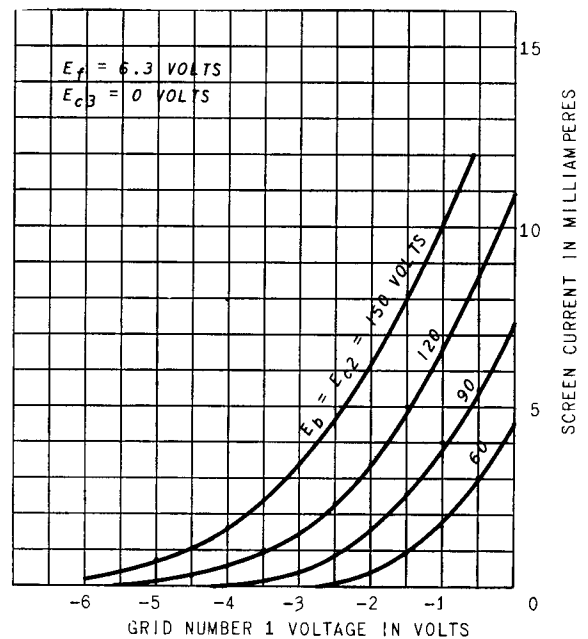
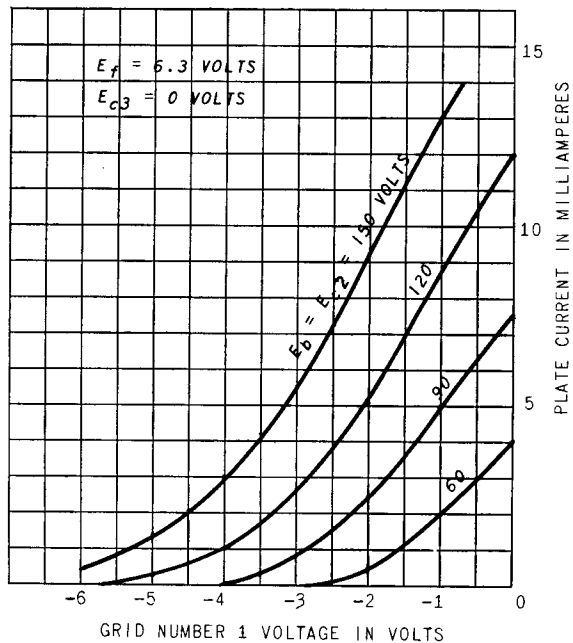
Plate Voltage	120	120	Volts
Screen Voltage	120	120	Volts
Suppressor Voltage	-3	0	Volts
Grid Number 1 Bias Voltage	-2	-2	Volts
Plate Current	3.6	5.2	Milliamperes
Screen Current	4.8	3.5	Milliamperes
Transconductance (Grid Number 1)	1850	3200	Micromhos
Transconductance (Suppressor)	810	470	Micromhos
Plate Resistance (Approx)	---	0.11	Megohm
Grid Number 1 Voltage for $I_b = 10$ Microamperes	---	-7.5	Volts
Grid Number 3 Voltage for $I_b = 10$ Microamperes	-10	---	Volts

With external shield connected to pin 2

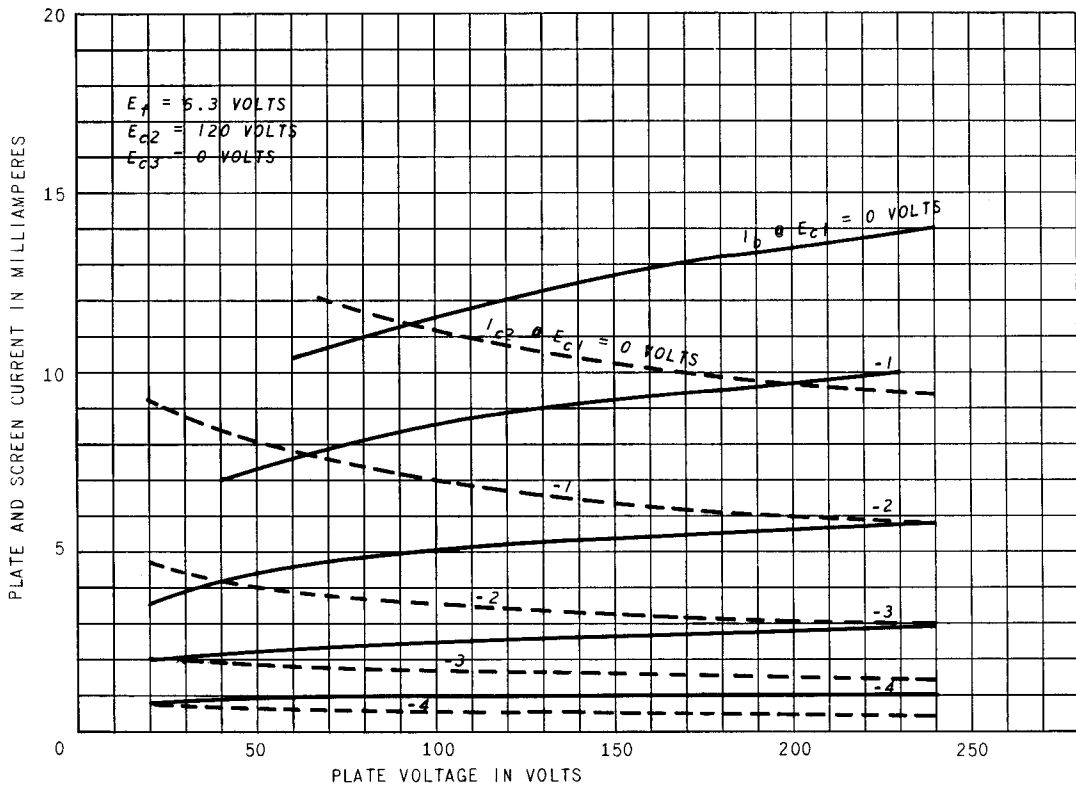
AVERAGE CHARACTERISTICS



AVERAGE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS

