



6SG7

Description and Rating

PENTODE

GENERAL DESCRIPTION

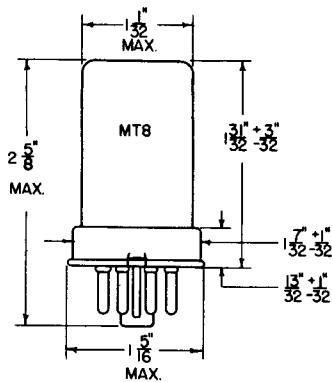
Principal Application: The 6SG7 is a remote-cutoff pentode designed for use as a high-gain radio- or intermediate-frequency amplifier. Features of the

tube include high transconductance, low grid-plate capacitance, and a dual cathode connection to reduce undesired coupling between cathode circuits.

Cathode Coated Unipotential
 Heater Voltage (A-C or D-C) 6.3 Volts
 Heater Current 0.3 Ampere
 Envelope MT-8, Metal Shell
 Base BB-21, Small Wafer Octal 8-Pin

Mounting Position Any
 Direct Interelectrode Capacitances: #
 Grid 1 to Plate (Max) 0.003 $\mu\mu\text{f}$
 Input 8.5 $\mu\mu\text{f}$
 Output 7.0 $\mu\mu\text{f}$

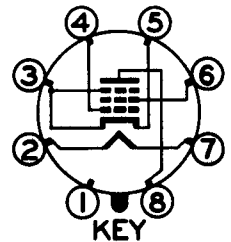
PHYSICAL DIMENSIONS



TERMINAL CONNECTIONS

- Pin 1 - Shell and Internal Shield
- Pin 2 - Heater
- Pin 3 - Cathode and Grid
Number 3 (Suppressor)
- Pin 4 - Grid Number 1
- Pin 5 - Cathode
- Pin 6 - Grid Number 2 (Screen)
- Pin 7 - Heater
- Pin 8 - Plate

BASING DIAGRAM



RTMA 8BK
 BOTTOM VIEW

DESIGN CENTER VALUES

Plate Voltage	300	Volts
Screen Supply Voltage	300	Volts
Screen Voltage	200	Volts
Positive D-C Grid Number 1 Voltage	0	Volts
Plate Dissipation	3	Watts
Screen Dissipation	0.6	Watt
Heater-Cathode Voltage	90	Volts

MAXIMUM RATINGS

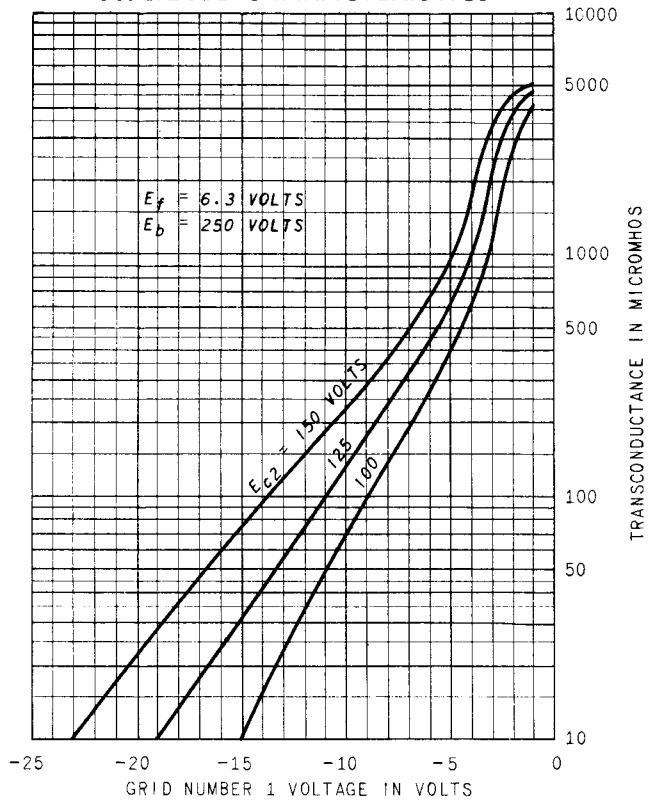
Measured with pin 1 connected to pin 3

CHARACTERISTICS AND TYPICAL OPERATION

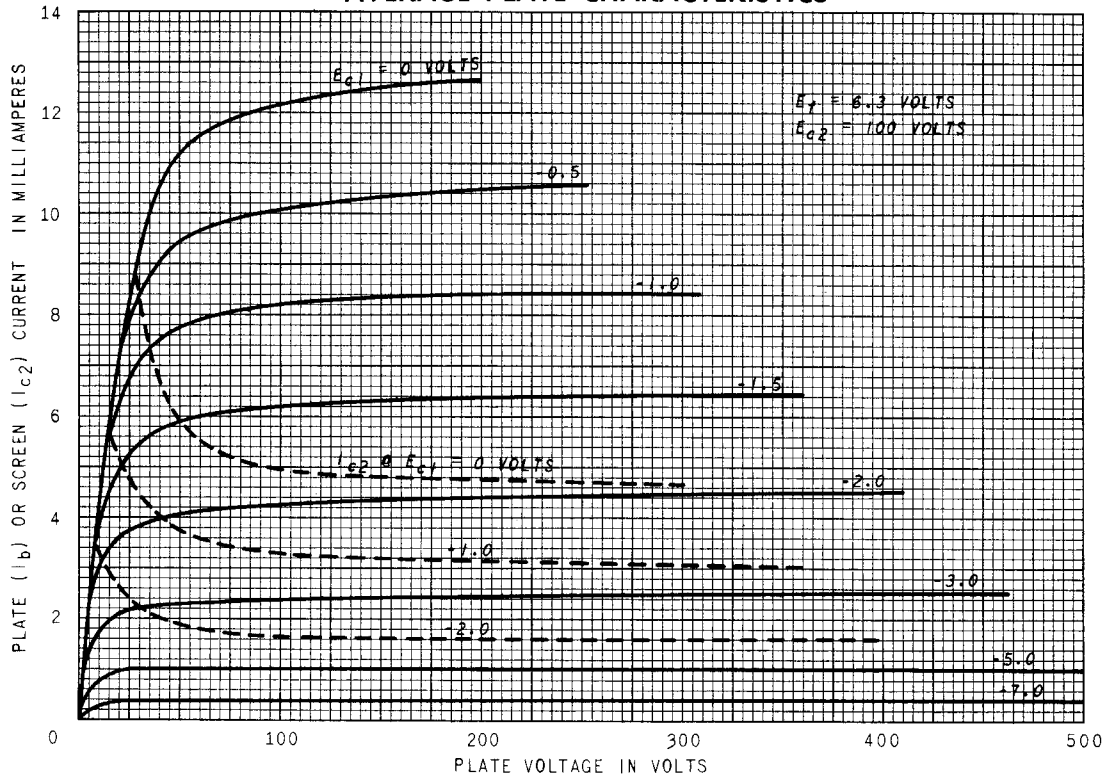
CLASS A₁ AMPLIFIER

Plate Voltage	100	250	250	Volts
Screen Voltage	100	125	150	Volts
Grid Number 1 Voltage	-1	-1	-2.5	Volts
Plate Resistance (Approx)	0.25	0.9	>1.0	Megohm
Transconductance	4100	4700	4000	Micromhos
Plate Current	8.2	11.8	9.2	Milliamperes
Screen Current	3.2	4.4	3.4	Milliamperes
Grid Number 1 Voltage (Approx) for G _m = 10 Micromhos	-15	-19	-23	Volts

AVERAGE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS

