



6AH4-GT

Description and Rating

TRIODE

FOR TV VERTICAL-DEFLECTION AMPLIFIER APPLICATIONS

The 6AH4-GT is a low- μ triode designed primarily for use as a vertical deflection amplifier in television receivers. The tube features high plate current at low plate voltages and is capable of withstanding the high pulse voltages normally encountered in this application. The 6AH4-GT, when operated from relatively low plate-supply voltages, is capable of deflecting fully large-deflection-angle picture tubes.

GENERAL

Cathode - Coated Unipotential

Heater Voltage, A-C or D-C 6.3 Volts

Heater Current 0.75 Ampere

Envelope - T-9, Glass

Base - B6-60, Short Intermediate Shell Octal 6-Pin

Mounting Position - Any

Direct Interelectrode Capacitances, approximate

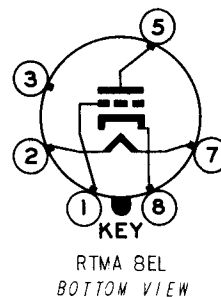
	With Shield*	Without Shield
Grid to Plate	4.2	4.4 $\mu\mu\text{f}$
Input	7.5	7.0 $\mu\mu\text{f}$
Output	3.2	1.7 $\mu\mu\text{f}$

MAXIMUM RATINGS

DESIGN-CENTER VALUES UNLESS OTHERWISE INDICATED

	Vertical Deflection Amplifier [†]	
D-C Plate Voltage	500	Volts
Peak Positive Pulse Plate Voltage [‡]	2000	Volts
Positive D-C Grid Voltage	0	Volts
Peak Negative Grid Voltage	200	Volts
Plate Dissipation [§]	7.5	Watts
D-C Cathode Current	60	Milliamperes
Peak Cathode Current	180	Milliamperes
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
D-C Component	100	Volts
Total D-C and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total D-C and Peak	200	Volts
Grid Circuit Resistance		
With Cathode Bias	2.2	Megohms

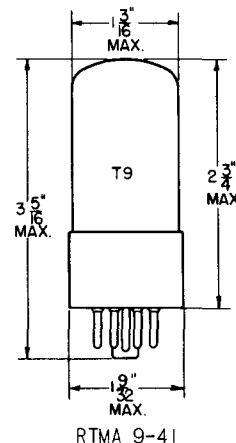
BASING DIAGRAM



TERMINAL CONNECTIONS

- Pin 1 - Grid
- Pin 2 - Heater
- Pin 3 - No Connection
- Pin 5 - Plate
- Pin 7 - Heater
- Pin 8 - Cathode

PHYSICAL DIMENSIONS



GENERAL ELECTRIC

Supersedes ET-T810 dated 1-53

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

Plate Voltage	250	250	Volts
Grid Voltage	-33	-23	Volts
Amplification Factor	---	8.0	
Plate Resistance, approximate	---	1780	Ohms
Transconductance	---	4500	Micromhos
Plate Current	5.0	30	Milliamperes
Grid Voltage, approximate, $I_b = 0.5$ Milliampere	---	-40	Volts

VERTICAL DEFLECTION AMPLIFIER [▽]

Plate Voltage	240	Volts
Cathode-Bias Resistor #	1100	Ohms
Grid Input Voltage, approximate		
Sawtooth Component	52	Volts
Negative Peaking Component	87	Volts
D-C Cathode Current	22	Milliamperes
Peak Cathode Current	62	Milliamperes
Plate Output Voltage, approximate		
Sawtooth Component	150	Volts
Peak Positive Pulse Component	900	Volts

* With external shield (RTMA 308) connected to cathode.

+ For operation in a 525-line, 30-frame television system as described in "Standards of Good Engineering Practice for Television Stations; Federal Communications Commission". The duty cycle of the voltage pulse must not exceed 15 percent of one scanning cycle.

‡ Value given is to be considered as an Absolute Maximum Rating. In this case, the combined effect of supply voltage variation, manufacturing variation including components in the equipment, and adjustment of equipment controls should not cause the rated value to be exceeded.

§ In stages operating with grid-leak bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.

[▽] For use in conjunction with a 70-degree picture tube operating at an anode voltage of 15 kilovolts.

Typical value of total cathode resistance for optimum linearity.

TYPICAL WAVEFORMS OF VERTICAL DEFLECTION AMPLIFIER

