

August 25, 1954

Medium-Mu Triodes Types 6S4 and 6S4-A

The 6S4 and 6S4-A are 9-pin miniature medium-mu triodes designed for use as vertical deflection amplifiers in television receivers. The tubes operate at relatively high plate currents at low plate voltages and can withstand the high pulse voltage encountered in vertical deflection amplifier service.

The 6S4-A has been designed for use in receivers which employ series-connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When it is employed in this type of circuit with other tubes having a heater current rating of 600 ma., heater voltage surges across individual tubes are minimized inasmuch as the heater warm-up characteristic is controlled.

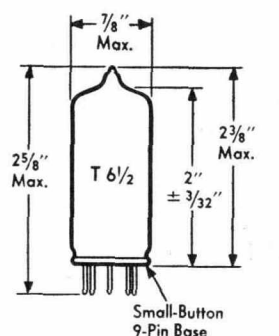
GENERAL DATA

Electrical:

Cathode	Coated Unipotential
Filament:	
Voltage	6.3 ac or dc Volts
Current	0.6 Ampere
Direct Interelectrode Capacitances:	
Grid to Plate	2.6 μf
Input	4.2 μf
Output	0.9 μf

Mechanical:

Bulb	T-6 $\frac{1}{2}$
Base	Small-Button Noval 9-pin
Basing	9 AC
Mounting Position	Any



CE-A553

MAXIMUM RATINGS

Design Center Values

Except as Noted

As

Vertical Deflection Amplifier*

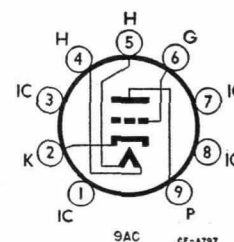
Plate Voltage	500	max.	Volts
Peak Positive Plate Voltage	2200	abs. max.	Volts
Plate Dissipation**	7.5	max.	Watts
Peak Negative Grid Voltage	250	max.	Volts
Average Cathode Current	30	max.	Ma.
Peak Cathode Current	105	max.	Ma.
Grid Circuit Resistance			
Cathode Bias	2.2	max.	Megohm

AVERAGE CHARACTERISTICS

Plate Voltage	250	Volts
Grid Voltage	-8	Volts
Plate Current	26	Ma.
Transconductance	4500	μmhos
Amplification Factor	16	
Plate Resistance	3600	Ohms
Plate Current, $E_c = -15$ Volts	4.5	Ma.
Grid Voltage for $I_b = 50 \mu\text{a.}$	-23	Volts

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

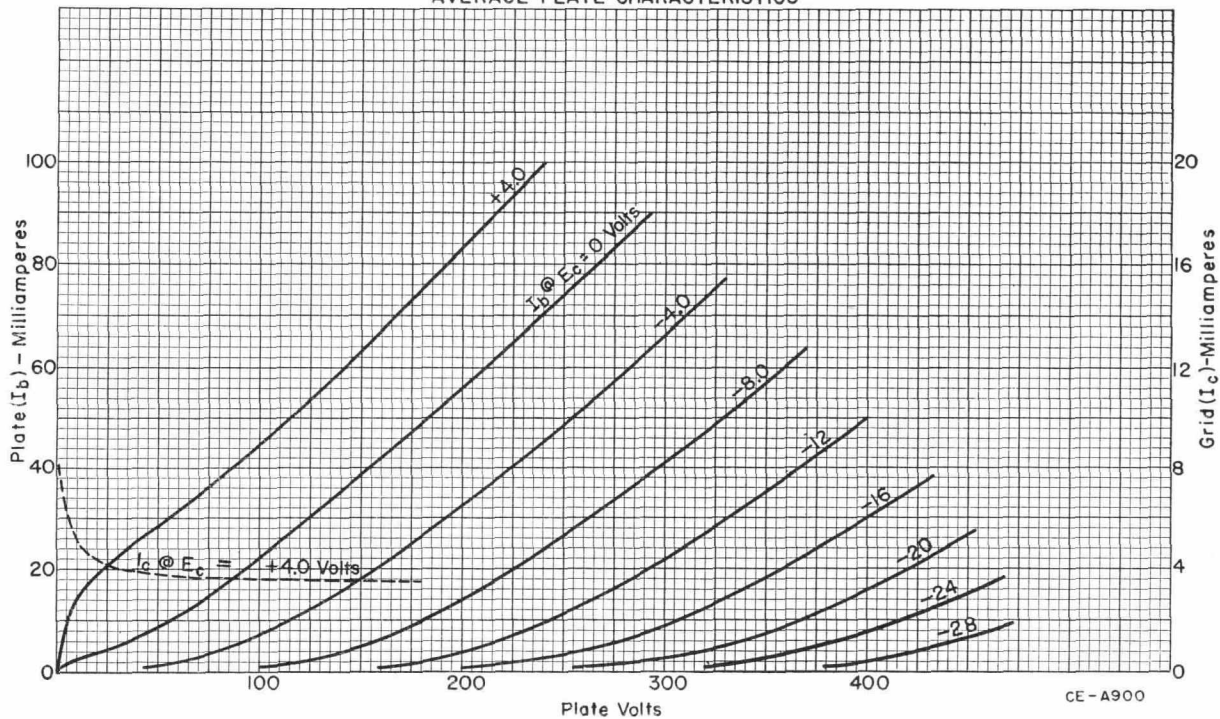
** Stages operating with grid leak bias must use an adequate cathode bias resistor or similar means in order to protect the tube in the absence of excitation.



Bottom View

Receiving Tube Section

AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

