

MECHANICAL DATA

Bulb	ST-16
Base	B6-13 Medium Shell Octal, 6-Pin
Basing	5BT
Top Cap	C1-1 Small
Cathode	Coated Unipotential
Mounting Position	Vertical ¹

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	6.3 Volts
Heater Current	2.5 Amperes
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
Total DC and Peak	200 Volts
Heater Positive with Respect to Cathode	
DC	100 Volts
Total DC and Peak	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Approximate)

Grid to Plate	0.6 μmf
Input	25 μmf
Output	9.5 μmf

RATINGS (Design Center Values — Except as Noted)

Horizontal Deflection Amplifier²

DC Plate Supply Voltage	
(Boost + DC Power Supply)	700 Volts Max.
Peak Positive Plate Voltage (Abs. Max.)	6600 Volts
Peak Negative Plate Voltage	1500 Volts Max.
Plate Dissipation ³	15 Watts Max.
Peak Negative Grid #1 Voltage	200 Volts Max.
DC Grid #2 Voltage	175 Volts Max.
Grid #2 Dissipation	3.0 Watts Max.
Average Cathode Current	200 Ma Max.
Peak Cathode Current	700 Ma Max.
Grid #1 Circuit Resistance	0.47 Megohm Max.
Bulb Temperature (At Hottest Point)	210° C Max.

AVERAGE CHARACTERISTICS

Pentode Operation: With $E_b=175\text{ V}$, $E_{c2}=175\text{ V}$ and $E_{c1}=-30\text{ V}$

Plate Current	75 Ma
Grid #2 Current	5.5 Ma
Transconductance	7700 μmhos
Plate Resistance	7200 Ohms

Zero Bias: With $E_b=60\text{ V}$ and $E_{c2}=100\text{ V}$ (Instantaneous Values)

Plate Current	230 Ma
Grid #2 Current	21 Ma

Cutoff: For $I_b=1\text{ ma}$ with $E_b=175\text{ V}$ and $E_{c2}=175\text{ V}$

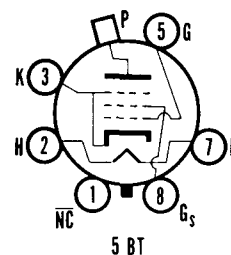
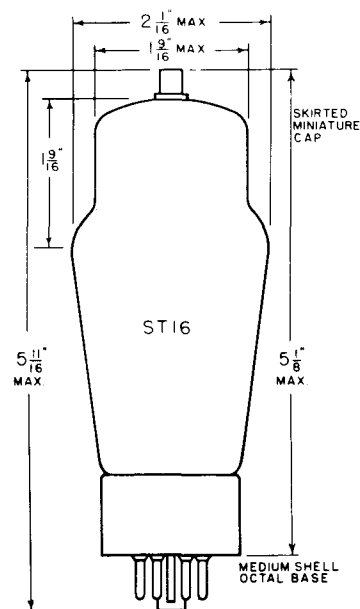
Grid #1 Voltage (approx.)	-55 Volts
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Triode Amplification Factor: With

$E_b=E_{c2}=175\text{ V}$ and $E_{c1}=-30\text{ V}$	3.9
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QUICK REFERENCE DATA

The Sylvania Type 6CD6G is a beam power amplifier designed for use as a horizontal deflection amplifier in television receivers.



**SYLVANIA ELECTRIC
PRODUCTS INC.**
RADIO TUBE DIVISION

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SYLVANIA 6CD6G

TYPICAL OPERATION

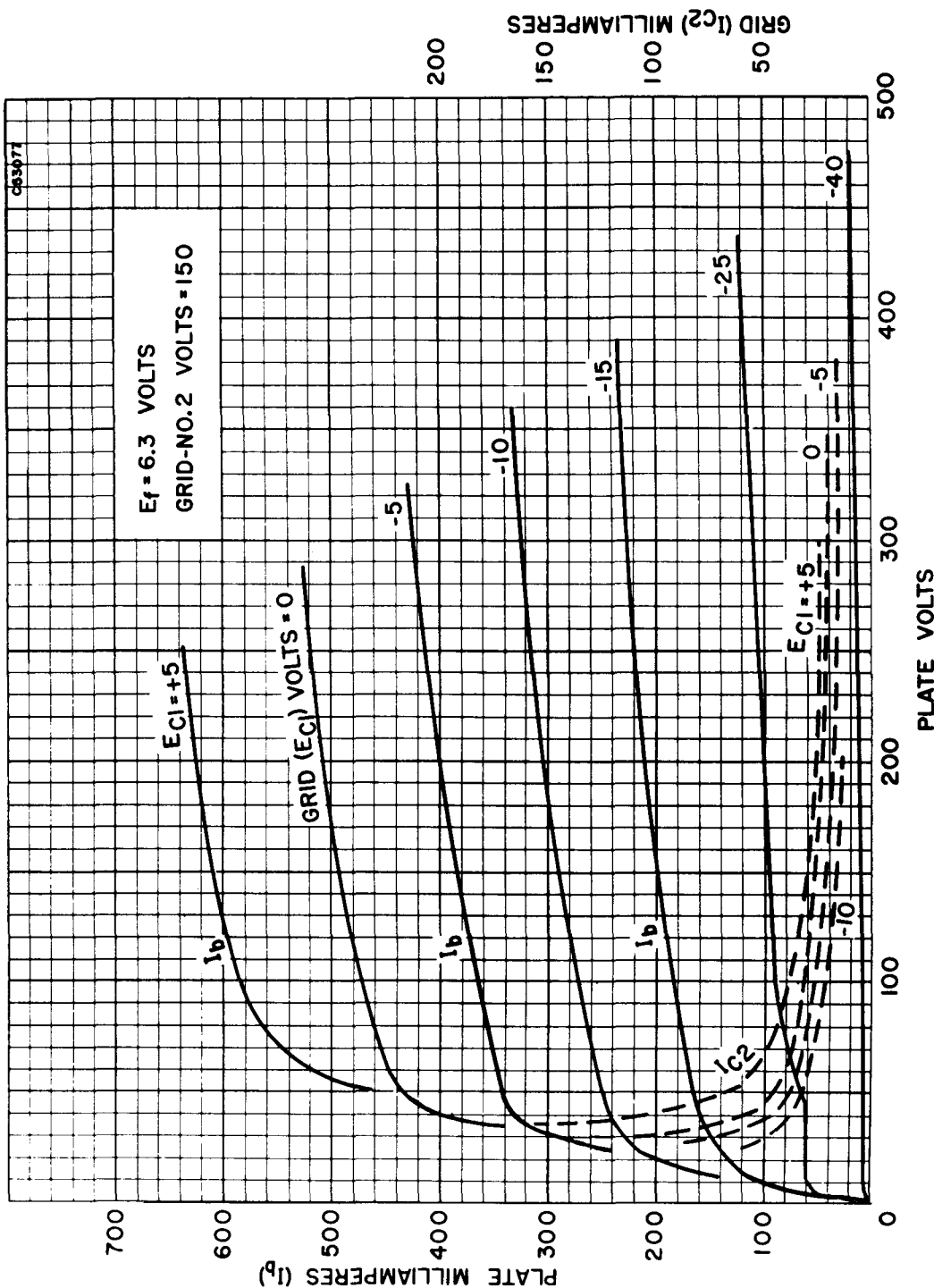
Horizontal Deflection Amplifier, 90° Picture Tube

Plate Supply Voltage	300 Volts
Average Plate Voltage (Boost + Supply)	620 Volts
Peak Positive Plate Voltage	
D C Component + Pulse	5600 Volts
Average Plate Current	113 Ma
Peak Plate Current	380 Ma
Plate Dissipation	11.0 Watts
Grid No. 2 Voltage	125 Volts
Grid No. 2 Current	16 Ma
Grid No. 2 Dissipation	2 Watts
Grid No. 1 Input Voltage	
Peak to Peak	180 Volts
Sawtooth Component	140 Volts
Anode Voltage (Picture Tube)	17.2 Kv
Anode Current (Picture Tube)	100 μ a

NOTES:

1. Horizontal operation permitted if plane of Pins 2 and 7 is vertical.
2. For operation in a 525-line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission". The duty cycle of the voltage pulse not to exceed 15% of a scanning cycle.
3. 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.

AVERAGE PLATE CHARACTERISTICS



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AVERAGE PLATE CHARACTERISTICS

