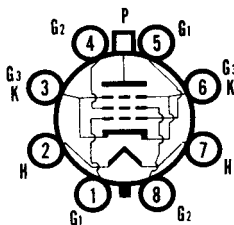


# SYLVANIA TYPE 6DQ5

## HORIZONTAL DEFLECTION AMPLIFIER



8JC

### MECHANICAL DATA

Bulb.....	T-12
Base.....	B8-118, Short Medium Shell Octal, 8-Pin
Outline.....	12-21
Basing.....	8JC
Top Cap.....	C1-1 Small
Cathode.....	Coated Unipotential
Mounting Position.....	Any

### 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 D C and Peak.....	200 Volts
Heater Positive with Respect to Cathode	
D C.....	100 Volts
Total D C and Peak.....	200 Volts

#### DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate.....	0.5 $\mu\text{mf}$
Input.....	23 $\mu\text{mf}$
Output.....	11 $\mu\text{mf}$

#### MAXIMUM RATINGS (Design Center Values—Except as Noted)

##### Horizontal Deflection Amplifier<sup>1</sup>

D C Plate Supply Voltage	
(Boost + D C Power Supply).....	900 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.).....	7000 Volts
Peak Negative Pulse Plate Voltage.....	1500 Volts
Plate Dissipation <sup>2</sup> .....	24 Watts
Grid No. 2 Input.....	3.2 Watts
Peak Negative Grid No. 1 Voltage.....	200 Volts
D C Grid No. 2 Voltage.....	175 Volts
Average Cathode Current.....	285 Ma
Peak Cathode Current.....	1000 Ma
Grid No. 1-Circuit Resistance.....	0.47 Megohm
Bulb Temperature (At Hottest Point).....	240 Degrees C

#### AVERAGE CHARACTERISTICS

Plate Voltage.....	175 Volts
Grid No. 2 Voltage.....	125 Volts
Grid No. 1 Voltage.....	-25 Volts
Plate Current.....	110 Ma
Grid No. 2 Current.....	5.0 Ma
Transconductance.....	10,500 $\mu\text{mhos}$
Amplification Factor <sup>3</sup> .....	3.3
Plate Resistance (Approx.).....	5500 Ohms
Ecl for Ib = 1.0 Ma (Approx.).....	-55 Volts
Instantaneous Plate Knee Values	
Eb = 70 V, Ec2 = 125 V, and Ec1 = 0 V	
Ib = 550 Ma and Ic2 = 42 Ma	

#### NOTES:

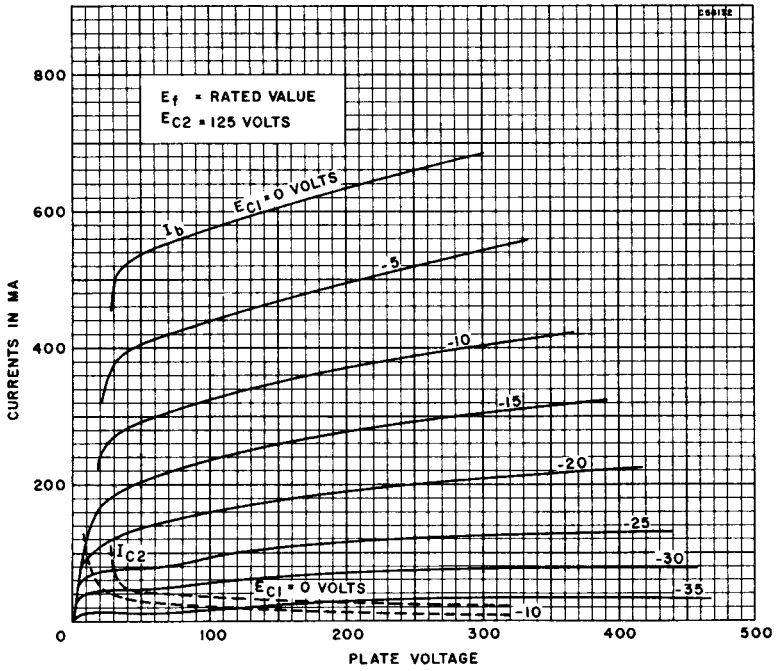
1. For operation in a 525-line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission". The duty cycle of the voltage pulse must not exceed 15% of one scanning cycle.
2. In stages operating with grid-leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
3. Amplification factor obtained with Grid No. 2 tied to plate and operating as a triode connected amplifier. Eb = 125 V and Ec1 = -25 V.

### APPLICATION

The Sylvania Type 6DQ5 is a beam power amplifier designed for use as a horizontal deflection amplifier in color television receivers.

# 6DQ5 (Cont'd)

## AVERAGE PLATE CHARACTERISTICS



## AVERAGE PLATE CHARACTERISTICS

