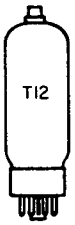
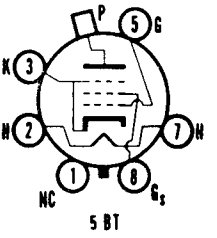


SYLVANIA TYPE 6DN6
25DN6

BEAM POWER AMPLIFIER



MECHANICAL DATA

Bulb	T-12
Base	B8-118, Short Medium Shell Octal, 8-Pin
Outline	12-21
Basing	5BT
Top Cap	C1-1 Small
Cathode	Coated Unipotential
Mounting Position	Vertical[1]

ELECTRICAL DATA

HEATER CHARACTERISTICS

	6DN6	25DN6	
Heater Voltage	6.3	25.0	Volts
Heater Current	2.5	0.60	Amperes
Heater Warm-up Time (See Appendix)		11	Seconds
Heater-Cathode Voltage (Design Center Values)			
Heater Negative with Respect to Cathode			
Total D C and Peak	200	200	Volts Max.
Heater Positive with Respect to Cathode			
D C	100	100	Volts Max.
Total D C and Peak	200	200	Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Approx.)

Grid No. 1 to Plate	0.8 $\mu\mu$f
Input	22 $\mu\mu$f
Output	11.5 $\mu\mu$f

RATINGS (Design Center Values—Except as Noted)

Horizontal Deflection Amplifier[2]

D C Plate Supply Voltage (Boost + D C Power Supply)	700 Volts Max.
Peak Positive Pulse Plate Voltage (Abs. Max.)	6600 Volts
Peak Negative Pulse Plate Voltage	1500 Volts Max.
Plate Dissipation[3]	15 Watts Max.
Peak Negative Grid No. 1 Voltage	200 Volts Max.
D C Grid No. 2 Voltage	175 Volts Max.
Grid No. 2 Dissipation	3.0 Watts Max.
Average Cathode Current	200 Ma Max.
Peak Cathode Current	700 Ma Max.
Grid No. 1 Circuit Resistance	0.47 Megohm Max.
Bulb Temperature (At Hottest Point)	225° C Max

AVERAGE CHARACTERISTICS

Pentode Operation:

With E_b = 125 V, E_{c2} = 125 V and E_{c1} = −18 V

Plate Current	70 Ma
Grid No. 2 Current	6.3 Ma
Transconductance	9000 μmhos
Plate Resistance (approx.)	4000 Ohms

Zero Bias:

With E_b = 50 V, E_{c2} = 100 V and E_{c1} = 0 V (Instantaneous Values)

Plate Current	240 Ma
Grid No. 2 Current	30 Ma

Cutoff:

For I_b = 0.5 Ma with E_b = 125 V and E_{c2} = 125 V

Grid No. 1 Voltage (approx.)	−36 Volts

Triode Amplification Factor:

With E_b = E_{c2} = 125 V and E_{c3} = −18 V 4.35

NOTES:

1. Horizontal operation permitted if plane of Pins 1 and 3 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 must not exceed 15% of one 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.

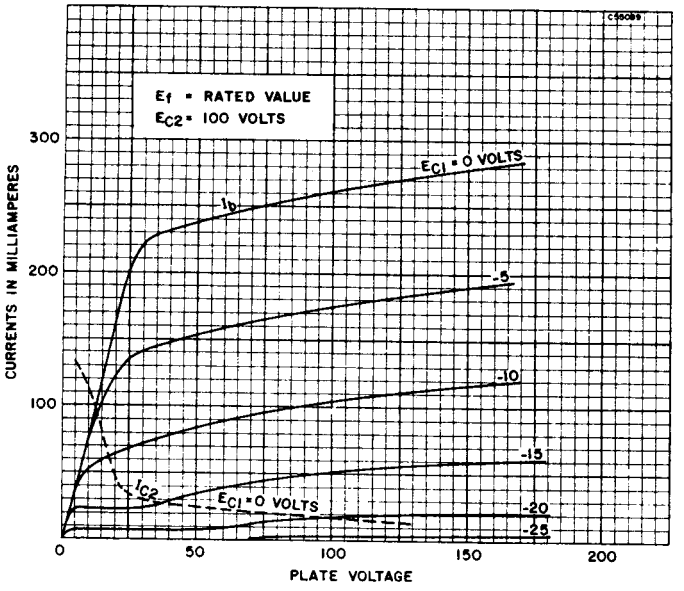
6DN6, 25DN6 (Cont'd)

APPLICATION

The Sylvania Types 6DN6 and 25DN6 are beam power amplifiers designed for use as horizontal deflection amplifiers in television receivers having low B supply voltages. These types exhibit extremely low plate knee characteristics at zero bias.

The 25DN6 features a 25.0 volt, 600 Ma heater and controlled heater warm-up time for series string operation. Except for heater characteristics, the 25ND6 is identical to the 6DN6.

AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

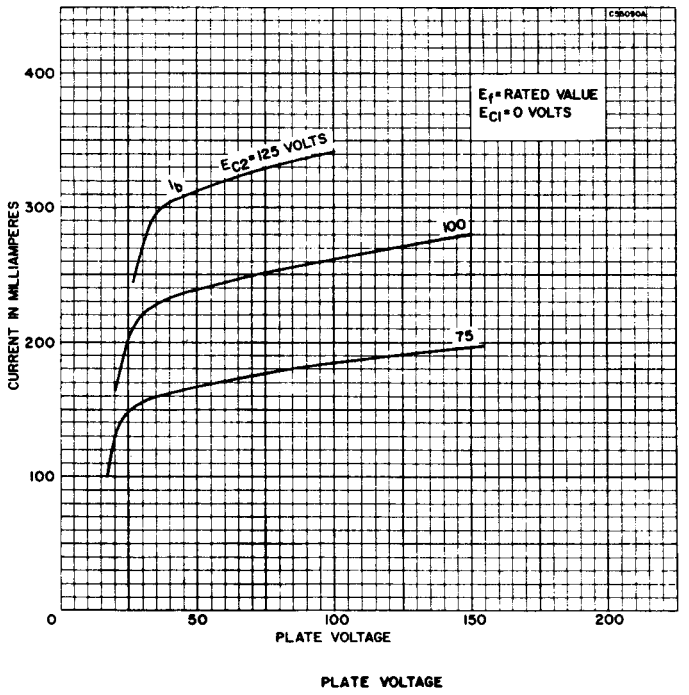


PLATE VOLTAGE