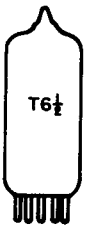
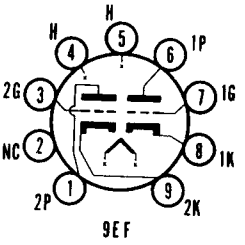


SYLVANIA TYPE 6CS7
8CS7

DOUBLE TRIODE



MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Small Button, 9-Pin
Outline	6-3
Basing	9EF
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	6CS7	8CS7	
Heater Voltage	6.3	8.4	Volts
Heater Current	600	450	Ma
Heater Warm-up Time (See Appendix)	11	11	Seconds
Heater-Cathode Voltage (Design Center Values)			
Heater Negative with Respect to Cathode			
Total D C and Peak		200	Volts Max
Heater Positive with Respect to Cathode			
D C		100	Volts Max
Total D C and Peak		200	Volts Max

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

	Triode No. 1[1]	Triode No. 2
Grid to Plate	2.6	2.6 μμf
Input: g to (k+h+e.s.)	1.8	3.0 μμf
Output: p to (k+h+e.s.)	0.5	0.5 μμf

RATINGS (Design Center Values—Except as Noted)
Vertical Deflection Oscillator and Amplifier[2]

	Triode No. 1[1] (Oscillator)	Triode No. 2 (Amplifier)	
D C Plate Voltage	500	500	Volts Max
Peak Positive Pulse Plate Voltage (Abs. Max.)		2200	Volts
Peak Negative Pulse Grid Voltage	400	250	Volts Max
Plate Dissipation[3]	1.25	6.5	Watts Max
Average Cathode Current	20	30	Ma Max
Peak Cathode Current	70	105	Ma Max
Grid Circuit Resistance	2.2	2.2	Megohms Max

AVERAGE CHARACTERISTICS

	Triode No. 1[1]	Triode No. 2	
Plate Voltage	250	250	Volts
Grid Voltage	−8.5	−10.5	Volts
Plate Current	10.5	19.0	Ma
Transconductance	2200	4500	μmhos
Amplification Factor	17.0	15.5	
Plate Resistance	7700	3450	Ohms
Plate Currant at E_c = −16 Volts		3.0	Ma
Grid Voltage for I_b = 10 μa	−24		Volts
Grid Voltage for I_b = 50 μa		−22	Volts

NOTES:

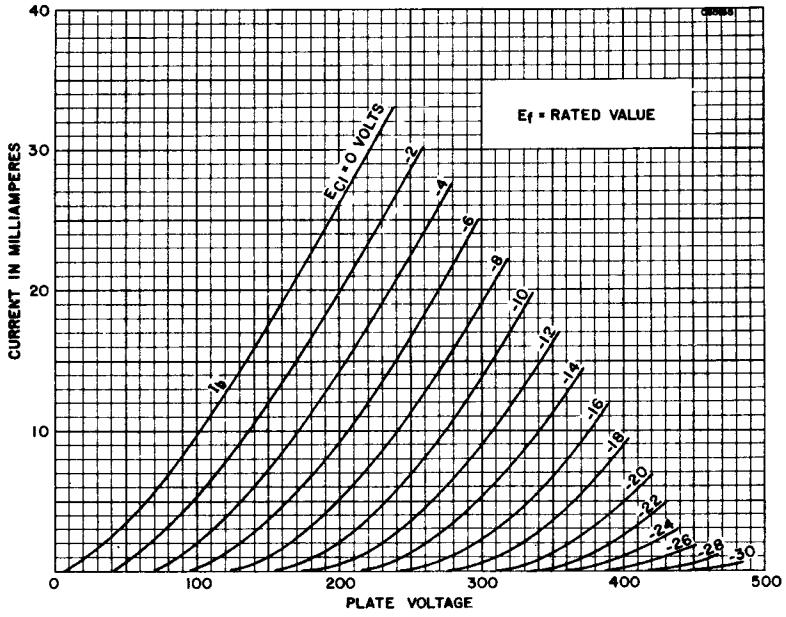
1. Triode No. 1 connects to pins 6, 7 and 8.
   Triode No. 2 connects to pins 1, 3 and 9.
2. For operation in a 525 line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations; Federal Communications Commission." The duty cycle of the voltage pulse 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.

APPLICATION

The Sylvania Types 6CS7 and 8CS7 are miniature, double triodes having dissimilar sections. Section No. 1 is intended for operation as a vertical deflection oscillator and Section No. 2 as a vertical deflection amplifier. The 6CS7 and 8CS7 incorporates controlled heater warm-up time to insure dependable operation in television receivers employing a series heater string.

6CS7, 8CS7 (Cont'd)

AVERAGE PLATE CHARACTERISTICS
TRIODE NO. 1



AVERAGE PLATE CHARACTERISTICS
TRIODE NO. 2