

Grid No. 2 Input (Up to 150 Volts) (Max.)	—	0.7 Watt
Grid No. 2 Input (150 Volts to 300 Volts) (Max.) .See Rating Chart (Gen. Info. Sec.)		
Grid Input	0.55	— Watt
Grid Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

	Triode Section	Tetrode Section
Plate Voltage	125	125 Volts
Grid No. 2 Voltage	—	125 Volts
Grid No. 1 Voltage	—	-1.0 Volt
Cathode Resistor	56	— Ohms
Plate Current	15	12 Ma
Grid No. 2 Current	—	4.2 Ma
Transconductance	8000	5800 μ mhos
Amplification Factor	40	—
Plate Resistance (Approx.)	5000	140,000 Ohms
E _{c1} for I _b = 100 μ a (Approx.)	-7	-7 Volts

NOTE:

(1) With external JEDEC No. 315 shield connected to cathode of section under test.

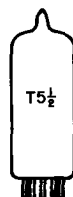
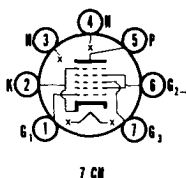
Color Television Type

SYNC SEPARATOR and CLIPPER**6CS6**

3CS6, 4CS6, 12CS6

Dual Control Heptode

Construction Miniature T-5½
 Base Button 7 Pin, E7-1
 Basing 7CH
 Outline 5-2
 Maximum Diameter 0.750 In.
 Maximum Seated Height 1.875 In.
 Maximum Overall Height 2.125 In.

**ELECTRICAL DATA****HEATER OPERATION**

	12CS6	4CS6	3CS6	6CS6
Heater Voltage	12.6	4.2	3.15	6.3 Volts
Heater Current	150	450	600	300 Ma
Heater Warm-up Time	—	11	11	— Seconds
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 (Unshielded)

Grid No. 1 to Plate (Max.)	0.05 Pf
Grid No. 3 to Plate (Max.)	0.36 Pf
Grid No. 1 Input: g ₁ to (k + h + g ₂ + g ₃ + g ₅)	5.5 Pf
Grid No. 3 Input: g ₃ to (k + h + g ₁ + g ₂ + g ₅)	7.0 Pf
Output: p to (k + h + g ₁ + g ₂ + g ₃ + g ₅)	7.5 Pf
Coupling (g ₁ to g ₃) (Max.)	0.15 Pf

RATINGS (Design Center Rating System)

Plate Voltage (Max.)	300 Volts
Plate Dissipation (Max.)	1.0 Watt
Grid No. 2 Voltage (Max.)	100 Volts
Grid No. 2 Supply Voltage (Max.)	300 Volts
Grid No. 2 Dissipation (Max.)	1.0 Watt
Cathode Current (Max.)	14 Ma
Grid No. 1 Circuit Resistance (Max.)	0.47 Megohm
Grid No. 3 Circuit Resistance (Max.)	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	10	100	100 Volts
Grid No. 2 Voltage	30	30	30 Volts

Grid No. 1 Voltage	0	0	-1.0 Volt
Grid No. 3 Voltage	0	-1.0	0 Volt
Plate Current	1.2	0.8	0.75 Ma
Grid No. 2 Current	4.1	4.0	1.1 Ma
Transconductance			
Grid No. 1.....	—	—	950 μ mhos
Grid No. 3.....	—	1250	— μ mhos
Plate Resistance (Approx.)	—	0.7	1.0 Megohm
Grid Voltage for Ib = 50 μ a			
Grid No. 1.....	—	—	-2.5 Volts
Grid No. 3.....	—	-2.2	— Volts

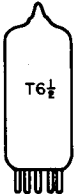
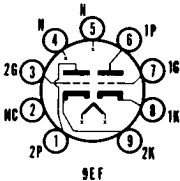
6CS7

8CS7

VERTICAL DEFLECTION
OSCILLATOR and AMPLIFIER

Double Dissimilar Triode

Construction Miniature T-6½
Base Button 9 Pin, E9-1
Basing 9EF
Outline 6-3
 Maximum Diameter 0.875 In.
 Maximum Seated Height 2.375 In.
 Maximum Overall Height 2.625 In.



ELECTRICAL DATA

HEATER OPERATION

	8CS7	6CS7
Heater Voltage.....	8.4	6.3 Volts
Heater Current	450	600 Ma
Heater Warm-up Time	11	11 Seconds
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 (Unshielded)

	Section 1 ⁽¹⁾	Section 2
Grid to Plate	2.6	2.6 Pf
Input: g to (k + h + IS)	1.8	3.0 Pf
Output: p to (k + h + IS)	0.5	0.5 Pf

RATINGS (Design Center Rating System)

Vertical Deflection Oscillator and Amplifier⁽²⁾

	Section 1 ⁽¹⁾ (Oscillator)	Section 2 (Amplifier)
DC Plate Voltage (Max.)	500	500 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.).....	—	2200 Volts
Plate Dissipation (Max.) ⁽²⁾	1.25	6.5 Watts
Peak Negative Pulse Grid Voltage (Max.)	400	250 Volts
Average Cathode Current (Max.).....	20	30 Ma
Peak Cathode Current (Max.)	70	105 Ma
Grid Circuit Resistance (Max.).....	2.2	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Section 1 ⁽¹⁾	Section 2
Plate Voltage	250	250 Volts
Grid Voltage	-8.5	-10.5 Volts
Plate Current	10.5	19.0 Ma