6KA8

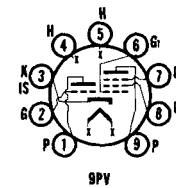
8KA8

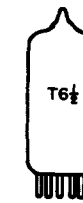
Color Television Type

SYNC SEPARATOR (T) AGC AMP and NOISE INVERTER (P)

High Mu Triode and Sharp Cutoff Pentode

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





ELECTRICAL DATA

HEATER OPERATION

	8KA8	6KA8
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)

Triode Section	
Grid to Plate	2.2 Pf
Input: g to (k + h + IS)	2.8 Pf
Output: p to (k + h + IS)	2.2 Pf
Pentode Section	
Grid No. 1 to Plate (Max.)	0.1 Pf
Input: g1 to (h + k + g2 + g3 + IS)	9.5 Pf
Grid No. 3 to (h + k + g2 + g1 + IS)	7 Pf
Grid No. 1 to Grid No. 3	0.5 Pf
Grid No. 3 to Plate	2.2 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	300	300 Volts
Peak Positive Pulse Plate Voltage (Max.)(1)	—	600 Volts
Grid No. 2 Supply Voltage (Max.)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 3 Voltage (Max.)	—	0 Volt
Negative Grid No. 3 Voltage (Max.)	—	100 Volts
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Negative Grid No. 1 Voltage (Max.)	50	50 Volts
Plate Dissipation (Max.)	1.1	2.0 Watts
Grid No. 2 Input (Max.)	—	1.1 Watt
Grid No. 1 Circuit Resistance		
Self Bias (Max.)	1.0	1.0 Megohm
Fixed Bias (Max.)	0.25	0.5 Megohm
Grid No. 3 Circuit Resistance (Max.)	—	0.68 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

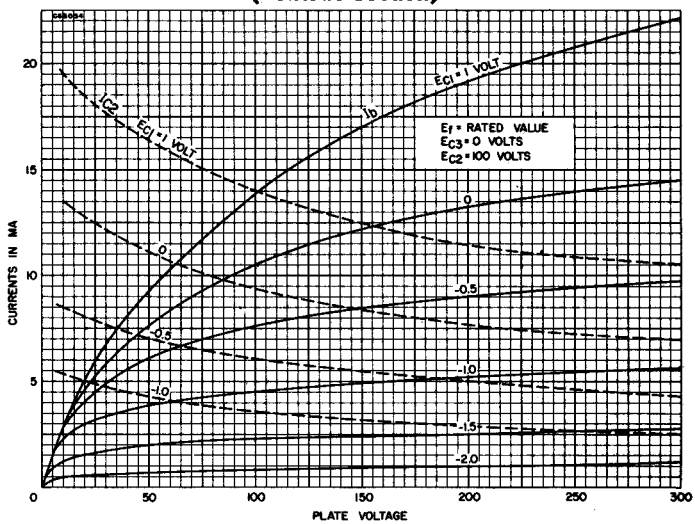
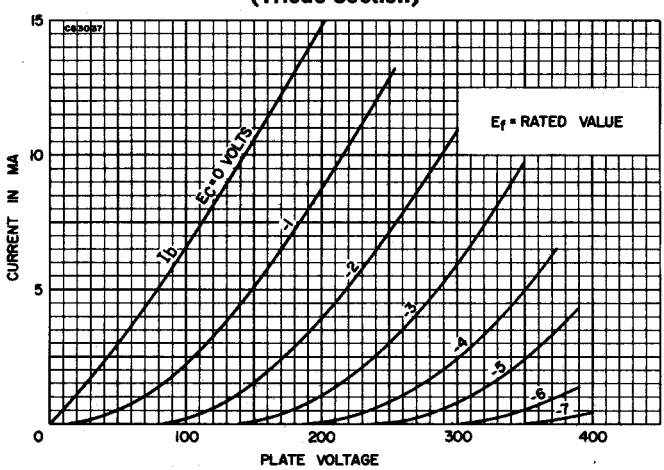
	Triode Section	Pentode Section
Plate Supply Voltage	200	150 Volts
Grid No. 2 Voltage	—	100 Volts

Grid No. 1 Voltage	–2	0 Volts
Cathode Bias Resistor	—	180 Ohms
Plate Current	4	4 Ma
Grid No. 2 Current	—	2.8 Ma
Amplification Factor	70	—
Plate Resistance (Approx.)	17,500	100,000 Ohms
Transconductance (G1 to P)	4000	4400 μmhos
Transconductance (G3 to P)	—	600 μmhos
Ec3 for Ib = 20 μa (Approx.)	—	–7 Volts
Ec1 for Ib = 10 μa (Approx.)	–5	— Volts
20 μa (Approx.)	—	–4 Volts

NOTE:

(1) The duration of the voltage pulse must not exceed 15% of one horizontal scanning cycle. In a 525-line, 30-frame system, 15% of one horizontal scanning cycle is 10 μsec.

AVERAGE PLATE CHARACTERISTICS
(Pentode Section)



AVERAGE PLATE CHARACTERISTICS
(Triode Section)