

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 No. 1

Grid to Plate 1.5 Pf

Input: 1Tg to (h + 1Tk + IS) 1.7 Pf

Output: 1Tp to (h + 1Tk + IS) 1.6 Pf

Triode No. 2

Grid to Plate 1.5 Pf

Input: 2Tg to (h + 2Tk + IS) 1.8 Pf

Output: 2Tp to (h + 2Tk + IS) 0.6 Pf

Diode No. 1

Plate to Cathode, Heater and Internal Shield 1.9 Pf

Diode No. 2

Plate to Cathode, Heater, and Internal Shield 1.8 Pf

Coupling

Triode Plate to Triode Plate 0.9 Pf

Diode Plate to Diode Plate 0.7 Pf

Triode No. 1 Grid to Diode No. 1 Plate 1.015 Pf

Triode No. 2 Grid to Diode No. 1 Plate 0.005 Pf

Triode No. 1 Grid to Diode No. 2 Plate 0.02 Pf

Triode No. 2 Grid to Diode No. 2 Plate 0.005 Pf

RATINGS (Design Maximum Rating System)

Triode (Each Section)

Plate Voltage 330 Volts

Plate Dissipation 2.5 Watts

DC Cathode Current 20 Ma

Grid Circuit Resistance

Fixed Bias 0.25 Megohm

Cathode Bias 1.0 Megohm

Diode (Each Section)

Average Diode Current for Eb = 5 Volts 20 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Triode (Each Section)

Plate Voltage 250 Volts

Grid Voltage -9.5 Volts

Plate Current 7.0 Ma

Amplification Factor 18

Plate Resistance 9750 Ohms

Transconductance 1850 μ mhosGrid Voltage for Ib = 50 μ a -20 Volts

Diode (Each Section)

Average Diode Current for Eb = 5 Volts 20 Ma

Color Television Type

RF/IF AMPLIFIER

6BA6/EF93

3BA6, 4BA6, 12BA6

Semi-Remote Cutoff Pentode

Construction Miniature T-5½

Base Button 7 Pin, E7-1

Basing 7BK

Outline 5-2

Maximum Diameter 0.750 In.

Maximum Seated Height 1.875 In.

Maximum Overall Height 2.125 In.

ELECTRICAL DATA

HEATER OPERATION

	3BA6	4BA6	12BA6
Heater Voltage.....	3.15	4.2	12.6
Heater Current.....	600	450	150
Heater Warm-up Time.....	11	11	—

Maximum Heater-Cathode Voltage

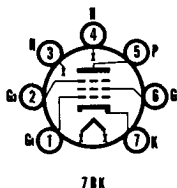
Heater Negative with Respect to Cathode

Total DC and Peak 200 Volts

Heater Positive with Respect to Cathode

DC 100 Volts

Total DC and Peak 200 Volts



7BK



6BA6/EF93

6.3 Volts
300 Ma
— Seconds

DIRECT INTERELECTRODE CAPACITANCES

	Shielded ⁽¹⁾	Unshielded
Grid No. 1 to Plate (Max.).....	0.0035	0.0035 Pf
Input	5.5	5.5 Pf
Output	5.5	5.0 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	330 Volts
Grid No. 2 Supply Voltage (Max.)	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)
Plate Dissipation (Max.)	3.4 Watts
Grid No. 2 Dissipation (Max.)	0.7 Watt
Negative Grid No. 1 Voltage (Max.)	55 Volts
Positive Grid No. 1 Voltage (Max.)	0 Volt

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	100	250 Volts
Grid No. 3 Voltage	Connected to Cathode at Socket	
Grid No. 2 Voltage	100	100 Volts
Cathode Bias Resistor	68	68 Ohms
Plate Resistance (Approx.)	0.25	1.0 Megohm
Transconductance	4300	4200 μ mhos
Plate Current	10.8	11.0 Ma
Grid No. 2 Current	4.4	4.2 Ma
Grid No. 1 Voltage for $G_m = 40$ μ mhos	-20	-20 Volts

NOTE:

(1) External Shield No. 316 Connected to Pin 7 (cathode).

6BA8A**8BA8A**

Color Television Type

**SYNC SEPARATOR/CLIPPER (T)
VIDEO AMPLIFIER (P)****Medium Mu Triode and Sharp Cutoff Pentode**

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

ELECTRICAL DATA**HEATER OPERATION**

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**Triode**

	Shielded ⁽¹⁾	Unshielded
Grid to Plate: (g to p)	2.2	2.2 Pf
Input: g to (h + k)	2.7	2.5 Pf
Output: p to (h + k)	1.9	0.4 Pf

Pentode

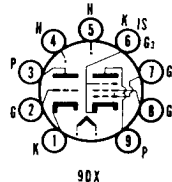
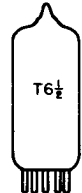
Grid to Plate: (g1 to p) (Max.)	0.05	0.06 Pf
Input: g1 to (h + k + g2 + g3 + IS).....	10.0	10.0 Pf
Output: p to (h + k + g2 + g3 + IS).....	4.5	3.6 Pf

Coupling

Pentode Grid No. 1 to Triode Plate (Max.)	0.003	0.006 Pf
Pentode Plate to Triode Grid (Max.)	0.006	0.016 Pf
Pentode Plate to Triode Plate (Max.)	0.023	0.150 Pf

RATINGS (Design Center Rating System)

	Triode	Pentode
Plate Voltage (Max.)	300	300 Volts
Grid No. 2 Supply Voltage (Max.)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.)	2.0	3.25 Watts
Grid No. 2 Dissipation (Max.)	—	1.0 Watt
Negative Grid No. 1 Voltage (Max.)	—	50 Volts

**8BA8A****6BA8A**