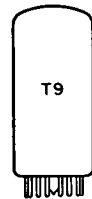
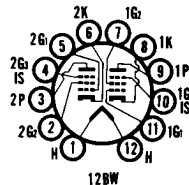


NOTES:

- (1) The cathode resistor should be adjusted for maximum AM rejection in the output of the limiter-discriminator stage at the specified signal level. AM rejection is measured with an applied signal containing 30% AM and 30% FM.
- (2) At signal levels above specified value, limiting is within ± 3 decibels. Adequate shielding between components of the limiter grid and the quadrature grid must be used to insure proper phasing of the voltage developed at the quadrature grid. Standard de-emphasis requirements for FM are included. The Q of the quadrature grid circuit should be high enough to develop a minimum of 4 volts (rms) signal with 2 volts (rms) of the center-frequency signal applied to the limiter grid. It is recommended that the coil be shunted by a minimum of 10 Pf. The capacitance may be composed of tube input capacitance, stray capacitance, and distributed capacitance, as well as physical capacitance.

6J11**IF AMPLIFIER****Double Sharp Cutoff Pentode**

Construction Compactron T-9
 Base Button 12 Pin, E12-70
 Basing 12BW
 Outline 9-58
 Maximum Diameter 1.188 In.
 Maximum Seated Height 2.000 In.
 Maximum Overall Height 2.375 In.

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

Heater Voltage.....	6.3 Volts
Heater Current.....	800 Ma
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 (Shielded)⁽¹⁾**Section 1**

Grid No. 1 to Plate (Max.)	0.04 Pf
Input: 1g1 to (h + 1k + 1g2 + 1g3 + 2g3 + 1S)	11 Pf
Output: 1p to (h + 1k + 1g2 + 1g3 + 2g3 + 1S)	2.8 Pf

Section 2

Grid No. 1 to Plate (Max.)	0.04 Pf
Input: 2g1 to (h + 2k + 2g2 + 2g3 + 1g3 + 1S)	11 Pf
Output: 2p to (h + 2k + 2g2 + 2g3 + 1g3 + 1S)	3.2 Pf
Cathode Section 1 to Cathode, Section 2 (Max.)	0.02 Pf
Grid No. 1, Section 1 to Plate, Section 2 (Max.)	0.003 Pf
Grid No. 1, Section 2 to Plate, Section 1 (Max.)	0.003 Pf
Plate, Section 1 to Plate, Section 2 (Max.)	0.03 Pf

RATINGS (Design Maximum Rating System) (Each Section)

Plate Voltage (Max.)	330 Volts
Screen-Supply Voltage (Max.)	330 Volts
Screen Voltage	See Rating Chart (Gen. Info. Sec.)
Positive DC Grid No. 1 Voltage (Max.)	0 Volt
Plate Dissipation (Max.)	3.1 Watts
Screen Dissipation (Max.)	0.65 Watts
Grid No. 1 Circuit Resistance with Cathode Bias (Max.)	0.25 Megohm

CHARACTERISTICS AND TYPICAL OPERATION (Each Section)

Plate Voltage	125 Volts
Suppressor	Connected to Cathode at Socket
Screen Voltage	125 Volts
Cathode-Bias Resistor	56 Ohms
Plate Resistance (Approx.)	0.2 Megohm
Transconductance	13,000 μ mhos
Plate Current	11 Ma
Screen Current	3.8 Ma
Grid No. 1 Voltage, (Approx.)	
Ib = 20 μ a	-3 Volts

NOTE:

- (1) Shield No. 309 connected to cathode of section under test.

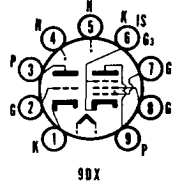
SYNC SEPARATOR/CLIPPER, PHASE INVERTER (T) VIDEO AMPLIFIER (P)

6JA8

10JA8

High Mu Triode and Beam Power 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

	10JA8	6JA8
Heater Voltage	10.5	6.3 Volts
Heater Current	450	750 Ma
Heater Warm-up Time	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	4.0 Pf
Input: g to (h + Tk + Pk, g3, IS)	2.6 Pf
Output: p to (h + Tk + Pk, g3, IS)	2.6 Pf

Pentode Section

Grid No. 1 to Plate (Max.)	0.1 Pt
Input: g1 to (h + Pk, g3, IS + g2)	11 Pf
Output: p to (h + Pk, g3, IS + g2)	4.4 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.005 Pf
Pentode Grid No. 1 to Triode Plate (Max.)	0.018 Pf
Pentode Plate to Triode Plate (Max.)	0.17 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	300	330 Volts
Grid No. 2 Supply Voltage (Max.)	—	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Plate Dissipation (Max.)	1.0	5.0 Watts
Grid No. 2 Dissipation (Max.)	—	1.5 Watts
Grid No. 1 Circuit Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section		Pentode Section	
Plate Voltage	135	200	135	200 Volts
Grid No. 2 Voltage	—	—	135	135 Volts
Grid No. 1 Voltage	—2	—2	—1.5	—1.5 Volts
Plate Current	1.0	3.5	17	18 Ma
Grid No. 2 Current	—	—	4.2	4.0 Ma
Transconductance	1550	3700	12,000	14,000 μmhos
Amplification Factor	60	70	—	—
Plate Resistance (Approx.)	39,000	19,000	66,000	70,000 Ohms
Ec1 for Ib = 100 μa (Approx.)	—	—	—5	—5 Volts
Ec1 for Ib = 10 μa (Approx.)	—4.8	—7.0	—	— Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS (Pentode Section)

Eb = 30 V, Ec2 = 135 V and Ec1 = 0 V
Ib = 32 Ma and Ic2 = 14 Ma