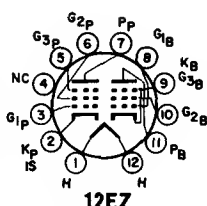


6T10

12T10

**BEAM POWER TUBE—
SHARP-CUTOFF PENTODE**

Duodecar type used as combined FM detector and audio-frequency output amplifier in color and black-and-white television receivers. The beam power unit is used in af output stages, and the sharp-cutoff, dual-control pentode unit is used as an FM detector. Outlines section, 8C; requires duodecar 12-contact socket. For maximum ratings and characteristics, refer to type 6AL11. Type 12T10 is identical with type 6T10 except for heater ratings.



	6T10	12T10	
Heater Voltage (ac/dc)	6.3	12.6	volts
Heater Current	0.95	0.45	amperes
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Unit No.1:			
Grid No.1 to Plate		0.22	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		11	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		10	pF
Unit No.2:			
Grid No.1 to Plate		0.032	pF
Grid No.3 to Plate		3	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3 and Internal Shield		6.5	pF
Grid No.3 to Cathode, Heater, Grid No.1, Grid No.2, Plate, and Internal Shield		7.5	pF
Grid No.1 to Grid No.3		0.12	pF
Plate of Unit No.1 to Plate of Unit No.2		0.13	pF

6U5

Refer to chart at end of section.

6U7G

Refer to chart at end of section.

6U8

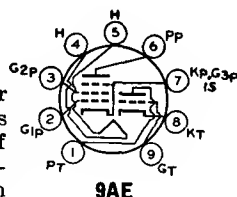
Refer to chart at end of section.

6U8A**6U8A/****6KD8**

5U8, 9U8A

**MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE**

Miniature types used as combined oscillator and mixer tube in color and black-and-white television receivers utilizing an intermediate frequency in the order of 40 MHz. Outlines section, 6B; require miniature 9-contact socket. Types 5U8 and 9U8A are identical with type 6U8A except for heater ratings.



	5U8	6U8A 6U8A/6KD8	9U8A	
Heater Voltage (ac/dc)	4.7	6.3	9.45	volts
Heater Current	0.6	0.45	0.3	ampere
Heater Warm-up Time (Average)	11	11	11	seconds
Heater-Cathode Voltage:				
Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances:				
Triode Unit:				
Grid to Plate		1.8	1.8	pF
Grid to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield		2.8	2.8	pF
Plate to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield		1.5	2	pF

Pentode Unit:

Grid No.1 to Plate	0.010 max	0.006 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5	5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	2.6	3.5	pF
Triode Cathode to Heater	3	3*	pF
Pentode Cathode, Pentode Grid No.3, and Internal Shield	3	3*	pF
Pentode Grid No.1 to Triode Plate	0.2 max	0.2 max	pF
Pentode Plate to Triode Plate	0.1 max	0.02 max	pF

* With external shield connected to pin 4 except as noted.

• With external shield connected to pin 6.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

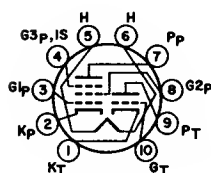
	Triode Unit	Pentode Unit	
Plate Voltage	330	330	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	330	volts
Grid-No.2 Voltage	—	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	2.5	3	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	0.55	watt
For grid-No.2 voltages between 165 and 330 volts	—	See curve page 98	

CHARACTERISTICS

Plate Voltage	125	125	volts
Grid-No.2 Voltage	—	110	volts
Grid-No.1 Voltage	—1	—1	volts
Amplification Factor	40	—	
Plate Resistance (Approx.)	—	0.2	megohm
Transconductance	7500	5000	μmhos
Plate Current	13.5	9.5	mA
Grid-No.2 Current	—	3.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	—9	—8	volts

MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE

**6U9/
ECF201**
5U9/LCF201



10K

Miniature type used in if-amplifier and sound and sync applications in television receivers. Outlines section, 6B, except has 10-pin base; requires miniature 10-contact socket. Type 5U9/LCF201 is identical with type 6U9/ECF201 except for heater ratings.

	5U9/LCF201	6U9/ECF201	
Heater Voltage	5.9	6.3	volts
Heater Current	0.45	0.41	ampere
Peak Heater-Cathode Voltage	±100 max	±150 max	volts
Direct Interelectrode Capacitance:			
Pentode Unit:			
Plate to All Other Elements (except grid No.1)		3.5	pF
Grid No.1 to All Other Elements (except plate)		6.5	pF
Grid No.1 to Cathode		4	pF
Plate to Grid No.1		<6.5	fF
Grid No.1 to Grid No.2		1.8	pF
Triode Unit:			
Plate to All Other Elements (except grid)		3	pF
Grid to All Other Elements (except plate)		2.5	pF
Plate to Grid		2	pF
Pentode Plate to Triode Plate		<15	fF
Pentode Grid No.1 to Triode Plate		<1.2	fF
Pentode Grid No.1 to Triode Grid		<1.5	fF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	Pentode Unit	
Plate Supply Voltage	550	550	volts
Plate Voltage	250	250	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	550	volts
Grid-No.2 Voltage	—	250	volts
Peak Cathode Current*	50	—	mA