

	6T10	10T10	12T10	
Heater Voltage (ac/dc)	6.3	9.8	12.6	volts
Heater Current	0.95	0.6	0.45	amperes
Heater Warm-up Time (Average)	—	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:				
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

Refer to chart at end of section.

6U5

Refer to chart at end of section.

6U7G

Refer to chart at end of section.

6U8

For replacement use type 6U8A/6KD8.

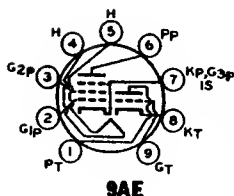
For replacement use type 6U8A/6KD8.

6U8A

MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

6U8A/ 6KD8

5U8, 9U8A



SAE

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. Type 5U8 is identical with type 6U8A/6KD8 except for heater ratings.

	5U8	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	volts
Average value		100 max	100 max	volts
Direct Interelectrode Capacitances:		Unshielded	Shielded [▲]	
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 300	
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 300	

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

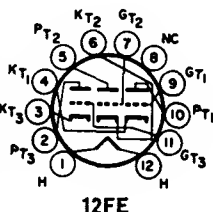
6U9/ECF201

Refer to chart at end of section.

6U10

THREE-UNIT TRIODE

Duodecar type used in amplifier applications. Units No.1 and No.3 are medium-mu triode units, and unit No.2 is a high-mu triode unit. Outlines section, 8A; requires duodecar 12-contact socket. Heater: volts (ac/dc), 6.3; amperes, 0.6; warm-up time (average), 11 seconds; maximum heater-cathode volts, ± 275 (peak) for units 1 and 3; ± 200 (peak) for unit 2; 100 (average) for each unit.



12FE

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Units Nos. 1 and 3	Unit No.2	
Plate Voltage	330	330	volts
DC Grid Voltage:			
Positive-bias value	0	0	volts
Negative-bias value	50	50	volts
Average Cathode Current	20	—	mA
Plate Dissipation	2	1	watts

CHARACTERISTICS

Plate Voltage	200	200	volts
Grid Voltage	—6	—1.5	volts
Amplification Factor	17.5	90	
Plate Resistance (Approx.)	7700	61000	ohms
Transconductance	2300	1600	μmhos
Plate Current	9.6	1.2	mA
Grid Voltage (Approx.):			
For plate current of 100 μA	—15	—	volts
For plate current of 35 μA	—	—3	volts

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:			
For fixed-bias operation	1	0.5	megohm
For cathode-bias operation	2.2	1*	megohms

* This value may reach 10 megohms provided the plate-supply voltage and load resistance are such that the plate dissipation can never exceed 0.5 watt.

6V3A

Refer to chart at end of section.