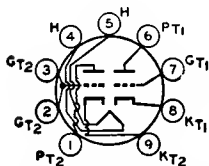


Transconductance for grid-No.1 volts of —5.5 and cathode resistor of 0 ohms	700	μ mhos
Plate Current	15.5	mA
Grid-No.2 Current	4.2	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μ A	—9	volts



9HF

DUAL TRIODE

6DE7

10DE7, 13DE7

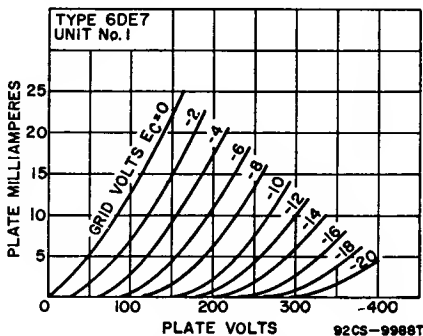
Miniature type used as combined vertical oscillator and vertical-deflection amplifier in television receivers. Unit No.1 is used as a blocking oscillator in vertical-deflection circuits, and unit No.2 is used as a vertical-deflection amplifier. Outlines section, 6E; requires miniature 9-contact socket. For curve of average plate characteristics, Unit No.2, refer to type 6DR7. Types 10DE7 and 13DE7 are identical with type 6DE7 except for heater ratings.

Heater Voltage (ac/dc)	6DE7	10DE7	13DE7	
Heater Current	6.3	9.7	13	volts
Heater Warm-up Time (Average)	0.9	0.6	0.45	ampere
Heater-Cathode Voltage:				seconds
Peak value	± 200 max	± 200 max	± 200 max	volts
Average value	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):	Unit No.1	Unit No.2		
Grid to Plate	4	8.5		pF
Grid to Cathode and Heater	2.2	5.5		pF
Plate to Cathode and Heater	0.52	1		pF

Class A₁ Amplifier

CHARACTERISTICS

Plate Voltage	Unit No.1	Unit No.2	
Grid Voltage	250	150	volts
Amplification Factor	—11	—17.5	volts
Plate Resistance (Approx.)	17.5	6	
Transconductance	8750	925	ohms
Plate Current	2000	6500	μ mhos
Plate Current for grid voltage of —24 volts	5.5	35	mA
Grid Voltage (Approx.) for plate current of 10 μ A	—	10	mA
Grid Voltage (Approx.) for plate current of 50 μ A	—20	—	volts
Grid Voltage (Approx.) for plate current of 50 μ A	—	—44	volts



Vertical-Deflection Oscillator and Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)	Unit No.1	Unit No.2	
DC Plate Voltage	Oscillator	Amplifier	
Peak Positive-Pulse Plate Voltage#	330	275	volts
Peak Negative-Pulse Grid Voltage	—	1500	volts
Peak Cathode Current	400	250	volts
	77	175	mA

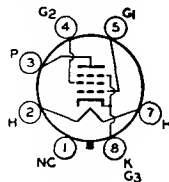
Average Cathode Current	22	50	mA
Plate Dissipation	1.5	7	watts
MAXIMUM CIRCUIT VALUES			
Grid-Circuit Resistance:			
For grid-resistor bias or cathode-bias operation	2.2	2.2	megohms
# Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).			

6DG6GT

BEAM POWER TUBE

Glass octal type used as output tube in audio-amplifier applications. Outlines section, 13D; requires octal socket. This type may be supplied with pin 1 omitted.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	1.2	amperes
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.6	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	15	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	10	pF



7S

Class A₁ Audio-Frequency Power Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	200	volts
Grid-No.2 (Screen-Grid) Voltage	125	volts
Plate Dissipation	10	watts
Grid-No.2 Input	1.25	watts

TYPICAL OPERATION

Plate Supply Voltage	110	200	volts
Grid-No.2 Supply Voltage	110	125	volts
Grid-No.1 (Control-Grid) Supply Voltage	-7.5	—	volts
Peak AF Grid-No.1 Voltage	7.5	8.5	volts
Cathode-Bias Resistor	—	180	ohms
Zero-Signal Plate Current	49	46	mA
Maximum-Signal Plate Current	50	47	mA
Zero-Signal Grid-No.2 Current	4	2.2	mA
Maximum-Signal Grid-No.2 Current	10	8.5	mA
Plate Resistance (Approx.)	13000	28000	ohms
Transconductance	8000	8000	μmhos
Load Resistance	2000	4000	ohms
Total Harmonic Distortion	10	10	per cent
Maximum-Signal Power Output	2.1	3.8	watts

MAXIMUM CIRCUIT VALUES

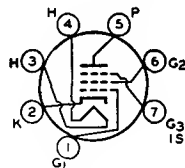
Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

6DK6

3DK6, 4DK6, 12DK6

SHARP-CUTOFF PENTODE

Miniature type used as if-amplifier tube in color and black-and-white television receivers. Outlines section, 5C; requires miniature 7-contact socket. Types 3DK6, 4DK6, and 12DK6 are identical with type 6DK6 except for heater ratings.



7CM

	3DK6	4DK6	6DK6	12DK6	
Heater Voltage (ac/dc)	3.15	4.2	6.3	12.6	volts
Heater Current	0.6	0.45	0.3	0.15	ampere
Heater Warm-up Time (Average)	11	11	—	—	seconds
Heater-Cathode Voltage:					
Peak value	{ +200 max -300 max	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances:					
Grid No.1 to Plate				0.025 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3 and Internal Shield				6.3	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield				1.9	pF