

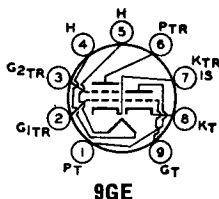
6CQ4

Refer to chart at end of section.
For replacement use type 6DE4/6CQ4.

6CQ8

MEDIUM-MU TRIODE—
SHARP-CUTOFF TETRODE

Miniature type used in color and black-and-white television receiver applications. The tetrode unit is used as a mixer, video if amplifier, or sound if amplifier tube. The triode unit is used in vhf oscillator, phase-splitter, sync-clipper, sync-separator, and rf amplifier circuits. Outlines section, 6B; requires miniature 9-contact socket.



Heater Voltage (ac/dc)	6.3	volts	
Heater Current	0.45	ampere	
Heater Warm-up Time (Average)	11	seconds	
Heater-Cathode Voltage:			
Peak value	±200 max	volts	
Average value	100 max	volts	
Direct Interelectrode Capacitances:			
	Unshielded	Shielded*	
Triode Unit:			
Grid to Plate	1.8	1.8	pF
Grid to Cathode and Heater	2.7	2.7	pF
Plate to Cathode and Heater	0.4	1.2	pF
Tetrode Unit:			
Grid No.1 to Plate	0.019 max	0.015 max	pF
Grid No.1 to Cathode, Heater, Grid No.2 and Internal Shield	5	5	pF
Plate to Cathode, Heater, Grid No.2, and Internal Shield	2.5	3.3	pF
Tetrode Plate to Triode Plate	0.07 max	0.01 max	pF
Heater to Cathode (Each Unit)	3	3†	pF

* With external shield connected to cathode of unit under test.

† With external shield connected to ground.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	Tetrode 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	3.1	3.2	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	0.7	watt
For grid-No.2 voltages between 165 and 330 volts	See curve page 300		
Grid Input	0.55	—	watt

CHARACTERISTICS

Plate-Supply Voltage	125	125	volts
Grid-No.2 Supply Voltage	—	125	volts
Grid-No.1 Voltage	—	—1	volts
Cathode-Bias Resistor	56	—	ohms
Amplification Factor	40	—	
Plate Resistance (Approx.)	5000	140000	ohms
Transconductance	8000	5800	μmhos
Plate Current	15	12	mA
Grid-No.2 Current	—	4.2	mA
Grid-No.1 Voltage (Approx.) for plate current of 100 μA	—7	—7	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5	0.25	megohm
For cathode-bias operation	1	1	megohm

6CR6

Refer to chart at end of section.