

Technical Information

**6GV8
9GV8**

TRIODE-PENTODE

The 6GV8 is a combined triode and beam pentode especially intended for use in vertical output stage, particularly 110° picture tubes. Special attention has been paid to properties important for this application, such as microphonism and linearity.

The 9GV8 is identical to the 6GV8 except for heater characteristics.

ELECTRICAL DATA

HEATER CHARACTERISTICS:

	6GV8	9GV8
Heater voltage (ac or dc)	6.3 ± 10%□	9.5●●
Heater current	0.90●	0.600 ± 6%□ amp
Heater positive with respect to cathode		
DC component	100	100 volts
Total DC and peak	200	200 volts
Heater negative with respect to cathode		
Total DC and peak	200	200 volts
Heater warm-up time		11 sec.

DIRECT INTERELECTRODE CAPACITANCES:

	With shield	Without shield
Pentode Section		
Grid #1 to plate	.50	.45 pf
Input: G1 to (h+k+g2+g3+int. shield).	12.0	12.0 pf
Output: p to (h+k+g2+g3+int. shield).	10.0	7.9 pf
Triode Section		
Grid to plate	1.6	1.7 pf
Input: g to (h+k)	4.3	4.5 pf
Output: p to (h+k+ts).	3.1	2.0 pf

DESIGN MAXIMUM RATINGS: (See EIA standard RS-239)

	Triode	Pentode
Plate voltage	250	250 volts
Peak plate voltage	---	2000 volts
Plate dissipation	0.5	7 watts
Grid #2 voltage	---	250 volts
Grid #2 dissipation	---	2 watts
Grid #1 ckt. resistance (fixed bias)	1.0	1 megohm
Grid #1 ckt. resistance (cathode bias)	3.3	2.2 megohm
Cathode current	15	75 ma

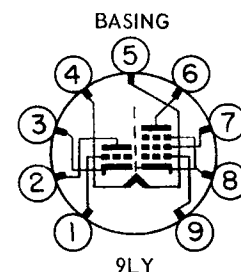
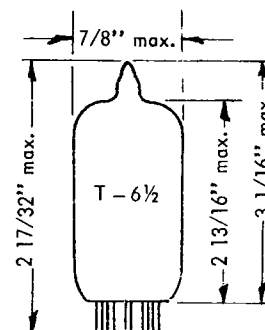
CHARACTERISTICS AND TYPICAL OPERATION:

	Triode	Pentode
Plate voltage	100	170 volts
Grid #2 voltage	---	170 volts
Grid #1 voltage	-0.8	-15 volts
Plate current	5	41 ma
Grid #2 current	---	2.7 ma
Transconductance	6500	7500 μ mhos
Amplification factor	50	7 (g_1 to g_2)
Plate resistance	7600	25,000 ohms

MECHANICAL DATA

ENVELOPE. T 6½
BASE miniature button 9-pin E9-1
CATHODE coated unipotential
MOUNTING POSITION. any

PHYSICAL DIMENSIONS



PIN CONNECTIONS

1. Plate, triode section
2. Grid #1, triode section
3. Cathode, triode section
4. Heater
5. Heater
6. Plate, pentode section
7. Grid #2
8. Grid #3, cathode, pentode section, internal shield
9. Grid #1, pentode section



6GV8
9GV8

TRIODE-PENTODE

ELECTRICAL DATA (Cont'd.)

INSTANTANEOUS PLATE KNEE CHARACTERISTICS: (Pentode section)

Plate voltage	50	65 volts
Grid #2 voltage	170	210 volts
Plate current	200	240 ma
Screen grid current	40	50 ma
Negative grid #1 voltage	-1	-1 volt

- The equipment designer shall design equipment so that the heater voltage for the 6GV8 and the heater current for the 9GV8 are centered at the specified bogey value with heater supply variations restricted to maintain heater voltage (or current) within the specified tolerance.

● Heater current at bogey heater voltage.

●● Heater voltage at bogey heater current.