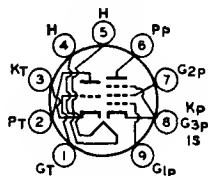


19HV8**HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE**

Miniature type used as if-amplifier and af voltage-amplifier tube in radio receivers. Outlines section, 6B; requires miniature 9-contact socket.

**9FA**

Heater Voltage (ac/dc)	18.9	volts	
Heater Current	0.15	ampere	
Heater-Cathode Voltage:			
Peak value	±200 max	volts	
Average value	100 max	volts	
Direct Interelectrode Capacitances:	Unshielded	Shielded	
Pentode Unit:			
Grid No.1 to Plate	0.016	0.007	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5.5	5.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	2.4	3.4	pF
Heater to Cathode	2.8	2.8	pF
Triode Unit:			
Grid to Plate	0.9	0.9	pF
Grid to Cathode, Cathode of Pentode Unit, Heater, Grid No.3, and Internal Shield	1.7	1.9	pF
Plate to Cathode, Cathode of Pentode Unit, Heater, Grid No.3, and Internal Shield	1.7	2.6	pF
Heater to Cathode	2.8	2.8	pF

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	0.55	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	100	125	volts
Grid-No.2 Voltage	—	125	volts
Grid-No.1 Voltage	—1	—1	volt
Amplification Factor	70	—	
Plate Resistance (Approx.)	54000	200000	ohms
Transconductance	1300	6500	μmhos
Plate Current	0.8	12	mA
Grid-No.2 Current	—	4	mA
Grid-No.1 Voltage (Approx.) for plate current of 50 μA	—1.5	—	volts
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	—	—9	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

19J6

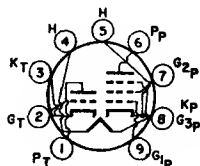
Refer to chart at end of section.

19JN8

Refer to type 6JN8.

19KG8**MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE**

Miniature type used as combined oscillator and mixer. Outlines section, 6B; requires miniature 9-contact socket. Heater: volts (ac/dc), 18.9; amperes, 0.15; maximum heater-cathode volts, ±200 peak, 100 average.

**9LY**

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	300	300	volts
Grid No.2 (Screen-Grid) Supply Voltage	—	300	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	2.5	watts
Grid No.2 Input:			
For grid-No.2 voltages up to 150 volts	—	0.55	watt
For grid-No.2 voltages between 150 and 300 volts	—	See curve page 98	

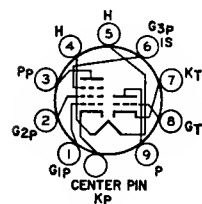
Triode Unit Pentode Unit

CHARACTERISTICS

Plate Voltage	125	125	volts
Grid-No.2 Voltage	—	125	volts
Grid-No.1 Voltage	—1	—1	volts
Amplification Factor	46	—	
Plate Resistance (Approx.)	5400	20000	ohms
Transconductance	8500	7500	μ mhos
Plate Current	13.5	12	mA
Grid-No.2 Current	—	4	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—8	—8	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	2.2	2.2	megohms
For cathode-bias operation	2.2	2.2	megohms



10H

MEDIUM-MU TRIODE—
SEMIREMOTE-CUTOFF PENTODE

19Q9

Miniature type used as FM rf amplifier and autodyne mixer. Outlines section, 6B, except center pin is added to base; requires miniature 10-contact socket. Heater: volts, 18.9; amperes, 0.15; warm-up time, 17 seconds; maximum heater-cathode voltage, ± 200 peak, 100 average.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

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	—	0.55	watt

Triode Section

Pentode Section

CHARACTERISTICS

Plate Voltage	125	100	125	volts
Grid-No.2 Voltage	—	70	125	volts
Grid-No.1 Voltage	—1	—	—1	volt
Amplification Factor	40	—	—	
Plate Resistance	5000	—	20000	ohms
Transconductance	8000	7000	6500	μ mhos
Plate Current	14	—	12	mA
Grid-No.2 Current	—	—	4	mA
Grid-No.1 (Approx.) for plate current of 20 μ A	—9	—	—9	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

Refer to chart at end of section.

19T8

Refer to type 6X8A.

19X8

Refer to chart at end of section.

20

Refer to chart at end of section.

20EQ7