

|                                                                                   |               |        |
|-----------------------------------------------------------------------------------|---------------|--------|
| Heater Voltage (ac/dc)                                                            | 6.3           | volts  |
| Heater Current                                                                    | 0.45          | ampere |
| Heater-Cathode Voltage:                                                           |               |        |
| Peak value                                                                        | $\pm 200$ max | volts  |
| Average value                                                                     | 100 max       | volts  |
| Direct Interelectrode Capacitances:                                               |               |        |
| Triode Unit:                                                                      |               |        |
| Grid to Plate                                                                     | 1.8           | pF     |
| Grid to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield  | 3.2           | pF     |
| Plate to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield | 1.9           | pF     |
| Pentode Unit:                                                                     |               |        |
| Grid No.1 to Plate                                                                | 0.015 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               | 3.8           | pF     |
| Heater to Cathode (Each Unit)                                                     | 3.2           | pF     |

### Class A<sub>1</sub> Amplifier

#### MAXIMUM RATINGS (Design-Maximum Values)

|                                                       |           |
|-------------------------------------------------------|-----------|
| Plate Voltage                                         | 330       |
| Grid-No.2 (Screen-Grid) Supply Voltage                | —         |
| Grid-No.2 Voltage                                     | See curve |
| Grid-No.1 (Control-Grid) Voltage, Positive-bias value | 0         |
| Plate Dissipation                                     | 2.5       |
| Grid-No.2 Input:                                      |           |
| For grid-No.2 voltages up to 165 volts                | —         |
| For grid-No.2 voltages between 165 and 330 volts      | See curve |

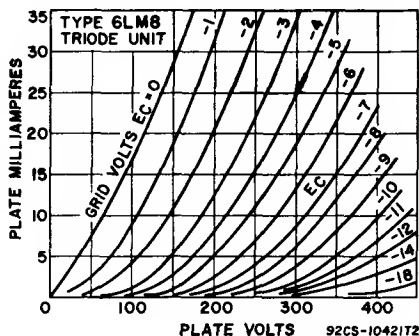
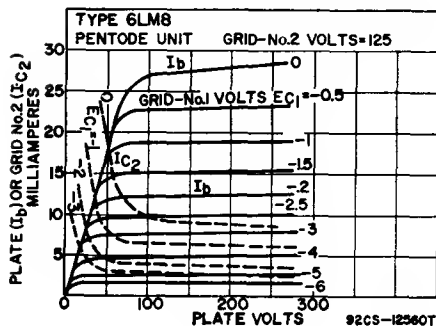
| Triode Unit | Pentode Unit |       |
|-------------|--------------|-------|
| 330         | 350          | volts |
| —           | 330          | volts |
| See curve   | page 98      |       |
| 0           | 0            | volts |
| 2.5         | 2.5          | volts |
| —           | 0.55         | watts |
| See curve   | page 98      |       |

#### CHARACTERISTICS

|                                                             |      |       |            |
|-------------------------------------------------------------|------|-------|------------|
| Plate Voltage                                               | 125  | 125   | volts      |
| Grid-No.2 Voltage                                           | —    | 125   | volts      |
| Grid No.1 Voltage                                           | —1   | —2    | volts      |
| Amplification Factor                                        | 46   | —     |            |
| Plate Resistance (Approx.)                                  | 5400 | 15000 | ohms       |
| Transconductance                                            | 8500 | 6000  | $\mu$ mhos |
| Plate Current                                               | 13.5 | 12    | mA         |
| Grid-No.2 Current                                           | —    | 4     | mA         |
| Grid-No.1 Voltage (Approx.) for plate current of 10 $\mu$ A | —8   | —14   | volts      |

#### MAXIMUM CIRCUIT VALUES

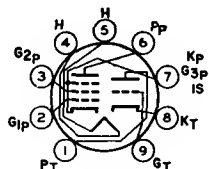
|                               |     |      |        |
|-------------------------------|-----|------|--------|
| Grid-No.1-Circuit Resistance: |     |      |        |
| For fixed-bias operation      | 0.5 | 0.25 | megohm |
| For cathode-bias operation    | 1   | 0.5  | megohm |



**6LN8/  
LCF80**

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

Miniature type used in frequency-changer service in television receivers. Outlines section, 6B; requires miniature 9-contact socket.



**9DC**

|                             |          |        |
|-----------------------------|----------|--------|
| Heater Voltage (ac/dc)      | 6        | volts  |
| Heater Current              | 0.45     | ampere |
| Peak Heater-Cathode Voltage | ±100 max | volts  |

## Class A<sub>1</sub> Amplifier

### MAXIMUM RATINGS (Design-Maximum Values)

|                                               | Triode Unit | Pentode Unit |       |
|-----------------------------------------------|-------------|--------------|-------|
| Plate Supply Voltage                          | 550         | 650          | volts |
| Plate Voltage                                 | 250         | 250          | volts |
| Grid-No.2 (Screen-Grid) Supply Voltage        | —           | 550          | volts |
| Grid-No.2 Voltage:                            |             |              |       |
| With cathode current of 14 mA                 | —           | 175          | volts |
| With cathode current less than 10 mA          | —           | 200          | volts |
| Cathode Current                               | 14          | 14           | mA    |
| Plate Dissipation                             | 1.5         | 1.7          | watts |
| Grid-No.2 Input:                              |             |              |       |
| With plate dissipation greater than 1.2 watts | —           | 0.5          | watt  |
| With plate dissipation less than 1.2 watts    | —           | 0.75         | watt  |

### CHARACTERISTICS

|                                         |      |      |        |
|-----------------------------------------|------|------|--------|
| Plate Voltage                           | 100  | 170  | volts  |
| Grid-No.2 Voltage                       | —    | 170  | volts  |
| Grid-No.1 Voltage                       | —2   | —2   | volts  |
| Amplification Factor                    | 20   | —    |        |
| Mu-Factor, Grid No.2 to Grid No.1       | —    | 47   |        |
| Plate Resistance (Approx.)              | —    | 0.4  | megohm |
| Transconductance                        | 6000 | 6200 | μmhos  |
| Plate Current                           | 14   | 10   | mA     |
| Grid-No.2 Current                       | —    | 2.8  | mA     |
| Input Resistance at frequency of 60 MHz | —    | 0.01 | megohm |
| Equivalent Noise Resistance             | —    | 1500 | ohms   |

### MAXIMUM CIRCUIT VALUES

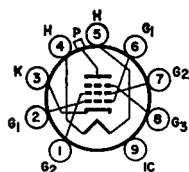
|                               |     |     |        |
|-------------------------------|-----|-----|--------|
| Grid-No.1-Circuit Resistance: |     |     |        |
| For fixed-bias operation      | 0.6 | 0.6 | megohm |
| For cathode-bias operation    | 0.6 | 1   | megohm |

**6LQ6**  
**6LQ6/**  
**6JE6B**

## BEAM POWER TUBE

24LQ6, 24LQ6/24JE6C

Novar types used as horizontal-deflection amplifier in color and black-and-white television receivers. Outlines section, 32C; require novar 9-contact socket. Types 24LQ6 and 24LQ6/24JE6C are identical with type 6LQ6 except for heater ratings.



9QL

|                                                           | 6LQ6<br>6LQ6/6JE6B | 24LQ6<br>24LQ6/24JE6C |         |
|-----------------------------------------------------------|--------------------|-----------------------|---------|
| Heater Voltage (ac/dc)                                    | 6.3                | 24                    | volts   |
| Heater Current                                            | 2.6                | 0.6                   | amperes |
| Heater Warm-up Time                                       | —                  | 11                    | seconds |
| Heater-Cathode Voltage:                                   |                    |                       |         |
| Peak value                                                | ±200 max           | ±200 max              | volts   |
| Average value                                             | 100 max            | 100 max               | volts   |
| Direct Interelectrode Capacitances:                       |                    |                       |         |
| Grid No.1 to Plate                                        | —                  | 0.56                  | pF      |
| Grid No.1 to Cathode, Heater, Grid No.2,<br>and Grid No.3 | —                  | 22                    | pF      |
| Plate to Cathode, Heater, Grid No.2,<br>and Grid No.3     | —                  | 11                    | pF      |

## Class A<sub>1</sub> Amplifier

|                                        | Triode*<br>Connection | Pentode Connection |       |
|----------------------------------------|-----------------------|--------------------|-------|
| CHARACTERISTICS                        |                       |                    |       |
| Peak Positive-Pulse Plate Voltage#     | —                     | 5000               | volts |
| Plate Voltage                          | 146                   | 60                 | 176   |
| Grid-No.3 (Suppressor-Grid)<br>Voltage | —                     | 30                 | 30    |
| Grid-No.2 (Screen-Grid) Voltage        | 146                   | 145                | 145   |
| Grid-No.1 (Control-Grid) Voltage       | —35                   | 0                  | —35   |
| Plate Resistance (Approx.)             | —                     | —                  | 7000  |
| Transconductance                       | —                     | —                  | 7500  |
| Plate Current                          | —                     | 710±               | 95    |
| Grid-No.2 Current                      | —                     | 66±                | 2.4   |