

## DUAL VHF TRIODE TYPE 6JK8

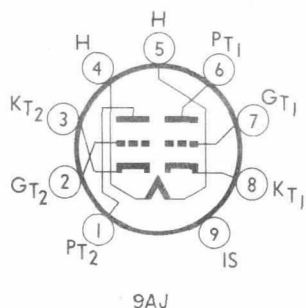
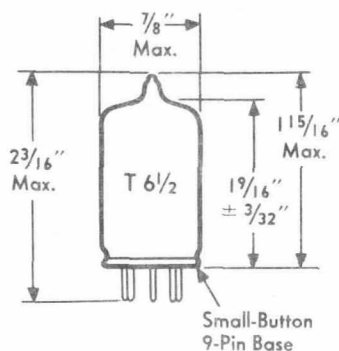
The 6JK8 is a dual VHF triode with dissimilar sections designed for use in FM tuners. Triode No. 1 (pins 6, 7 & 8) is designed for service as a combination oscillator-mixer. Triode No. 2 (pins 1, 2 & 3) features a frame grid and is intended for service as a high performance r-f amplifier.

### ELECTRICAL

|                                                         |                     |                       |
|---------------------------------------------------------|---------------------|-----------------------|
| Cathodes .....                                          | Coated Unipotential |                       |
| Heater:                                                 |                     |                       |
| Voltage (ac or dc) .....                                | 6.3                 | Volts                 |
| Current .....                                           | 0.40                | Ampere                |
| Direct Interelectrode Capacitances (Shielded) (Note 1): |                     |                       |
|                                                         | Unit 1              | Unit 2                |
| Grid to Plate .....                                     | 1.4                 | 0.6 $\mu\mu\text{f}$  |
| Input .....                                             | 3.0                 | 5.0 $\mu\mu\text{f}$  |
| Output .....                                            | 1.0                 | 4.0 $\mu\mu\text{f}$  |
| Heater to Cathode .....                                 | 2.8                 | 2.8 $\mu\mu\text{f}$  |
| Grid to Other Plate .....                               | 0.003               | max. $\mu\mu\text{f}$ |
| Plate to Other Plate .....                              | 0.009               | max. $\mu\mu\text{f}$ |

### MECHANICAL

|                         |                              |
|-------------------------|------------------------------|
| Bulb .....              | T-6½                         |
| Base .....              | Miniature 9-Pin (JEDEC E9-1) |
| Outline .....           | 6-2                          |
| Basing .....            | 9AJ                          |
| Mounting Position ..... | Any                          |



### MAXIMUM RATINGS

Design Maximum Values

|                                            | Triode No. 1<br>as Mixer-<br>Oscillator | Triode No. 2<br>as r-f<br>Amplifier |       |
|--------------------------------------------|-----------------------------------------|-------------------------------------|-------|
| Plate Voltage .....                        | 165                                     | 200 max.                            | Volts |
| Negative Grid Voltage .....                | 50                                      | 50 max.                             | Volts |
| Plate Dissipation .....                    | 1                                       | 2 max.                              | Watts |
| Cathode Current .....                      | 22                                      | 22 max.                             | Ma.   |
| Heater-Cathode Voltage                     |                                         |                                     |       |
| Heater Negative with<br>Respect to Cathode |                                         |                                     |       |
| Total D.C. and Peak .....                  | 100                                     | 100 max.                            | Volts |
| Heater Positive with<br>Respect to Cathode |                                         |                                     |       |
| Total D.C. and Peak .....                  | 100                                     | 100 max.                            | Volts |
| Grid Circuit Resistance (Note 2) .....     | 1.0                                     | 1.0 max.                            | Meg.  |

### CHARACTERISTICS AND TYPICAL OPERATION

|                                                                     | Triode No. 1<br>as Mixer-<br>Oscillator | Triode No. 2<br>as r-f<br>Amplifier |                  |
|---------------------------------------------------------------------|-----------------------------------------|-------------------------------------|------------------|
| Plate Voltage .....                                                 | 100                                     | 135                                 | Volts            |
| Grid Voltage .....                                                  | -1                                      | -1.2                                | Volts            |
| Plate Current .....                                                 | 5.3                                     | 10                                  | Ma.              |
| Plate Resistance .....                                              | 8000                                    | 5400                                | Ohms             |
| Transconductance .....                                              | 6800                                    | 13000                               | $\mu\text{mhos}$ |
| Amplification Factor .....                                          | 55                                      | 70                                  | -                |
| Grid Voltage for Plate<br>Current of 20 $\mu\text{A}$ .....         | -4.4                                    | -                                   | Volts            |
| Grid Voltage for Transconductance<br>of 150 $\mu\text{mhos}$ .....  | -                                       | -5.5                                | Volts            |
| Grid Voltage for Transconductance<br>of 1500 $\mu\text{mhos}$ ..... | -                                       | -2.8                                | Volts            |

### NOTES

1. With JEDEC Shield No. 315 connected to cathode of unit under test.
2. Self bias operation.

