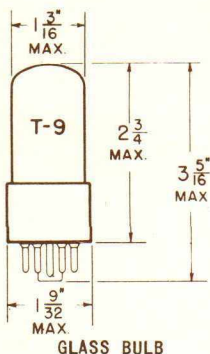


## TUNG-SOL

## BEAM PENTODE



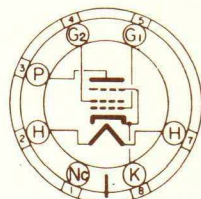
COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.225 AMP

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

INTERMEDIATE SHELL  
7 PIN OCTAL

TAC

THE 12V6GT IS A BEAM POWER AMPLIFIER, DESIGNED FOR SERVICE IN THE OUTPUT STAGE OF AC AND STORAGE BATTERY OPERATED RECEIVERS. IT HAS HIGH POWER SENSITIVITY AND HIGH POWER OUTPUT WITH COMPARATIVELY LOW SUPPLY VOLTAGES.

## DIRECT INTERELECTRODE CAPACITANCES

|                                       |     |         |
|---------------------------------------|-----|---------|
| GRID TO PLATE: ( $G_1$ TO P)          | 0.7 | $\mu f$ |
| INPUT: $G_1$ TO (H+K+ $G_2$ + $G_3$ ) | 9.0 | $\mu f$ |
| OUTPUT: P TO (H+K+ $G_2$ + $G_3$ )    | 7.5 | $\mu f$ |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER VALUES

|                                          |       |        |
|------------------------------------------|-------|--------|
| HEATER VOLTAGE                           | 12.6  | VOLTS  |
| MAXIMUM HEATER-CATHODE VOLTAGE:          |       |        |
| DC                                       | 100   | VOLTS  |
| TOTAL DC AND PEAK                        | 100 ← | VOLTS  |
| HEATER NEGATIVE WITH RESPECT TO CATHODE: |       |        |
| TOTAL DC AND PEAK                        | 100 ← | VOLTS  |
| MAXIMUM PLATE VOLTAGE                    | 315   | VOLTS  |
| MAXIMUM GRID #2 VOLTAGE                  | 285   | VOLTS  |
| MAXIMUM PLATE DISSIPATION                | 12    | WATTS  |
| MAXIMUM GRID #2 DISSIPATION              | 2     | WATTS  |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE:      |       |        |
| FIXED BIAS OPERATION                     | 0.1   | MEGOHM |
| CATHODE BIAS OPERATION                   | 0.5   | MEGOHM |

VERTICAL DEFLECTION AMPLIFIER - TRIODE CONNECTION<sup>AB</sup>

|                                                  |      |         |
|--------------------------------------------------|------|---------|
| HEATER VOLTAGE                                   | 12.6 | VOLTS   |
| MAXIMUM DC PLATE VOLTAGE                         | 315  | VOLTS   |
| MAXIMUM PEAK POSITIVE VOLTAGE (ABSOLUTE MAXIMUM) | 1200 | VOLTS   |
| MAXIMUM PLATE DISSIPATION <sup>C</sup>           | 9    | WATTS   |
| MAXIMUM PEAK NEGATIVE GRID VOLTAGE               | 250  | VOLTS   |
| MAXIMUM AVERAGE CATHODE CURRENT                  | 35   | MA.     |
| MAXIMUM PEAK CATHODE CURRENT                     | 105  | MA.     |
| MAXIMUM GRID CIRCUIT RESISTANCE (CATHODE BIAS)   | 2.2  | MEGOHMS |

<sup>A</sup> ALL VALUES ARE EVALUATED ON DESIGN CENTER SYSTEM EXCEPT WHERE ABSOLUTE MAXIMUM IS STATED.

<sup>B</sup> FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION". THE DUTY CYCLE OF THE VOLTAGE PULSE NOT TO EXCEED 15% OF A SCANNING CYCLE.

<sup>C</sup> IN STAGES OPERATING WITH GRID-LEAK BIAS, AN ADEQUATE CATHODE BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE.

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER - SINGLE TUBE

|                                     |        |        |        |         |
|-------------------------------------|--------|--------|--------|---------|
| HEATER VOLTAGE                      | 12.6   | 12.6   | 12.6   | VOLTS   |
| HEATER CURRENT                      | 0.225  | 0.225  | 0.225  | AMP.    |
| PLATE VOLTAGE                       | 180    | 250    | 315    | VOLTS   |
| GRID #2 VOLTAGE                     | 180    | 250    | 225    | VOLTS   |
| GRID #1 VOLTAGE                     | -8.5   | -12.5  | -13.0  | VOLTS   |
| PEAK AF GRID #1 VOLTAGE             | 8.5    | 12.5   | 13.0   | VOLTS   |
| ZERO-SIGNAL PLATE CURRENT           | 29     | 45     | 34     | MA.     |
| MAXIMUM-SIGNAL PLATE CURRENT        | 30     | 47     | 35     | MA.     |
| ZERO-SIGNAL GRID #2 CURRENT         | 3      | 4.5    | 2.2    | MA.     |
| MAXIMUM-SIGNAL GRID #2 CURRENT      | 4      | 7      | 6      | MA.     |
| PLATE RESISTANCE (APPROX.)          | 50 000 | 50 000 | 80 000 | OHMS    |
| TRANSCONDUCTANCE                    | 3 700  | 4 100  | 3 750  | μMHOS   |
| LOAD RESISTANCE                     | 5 500  | 5 000  | 8 500  | OHMS    |
| MAXIMUM-SIGNAL POWER OUTPUT         | 2      | 4.5    | 5.5    | WATTS   |
| TOTAL HARMONIC DISTORTION (APPROX.) | 8      | 8      | 12     | PERCENT |

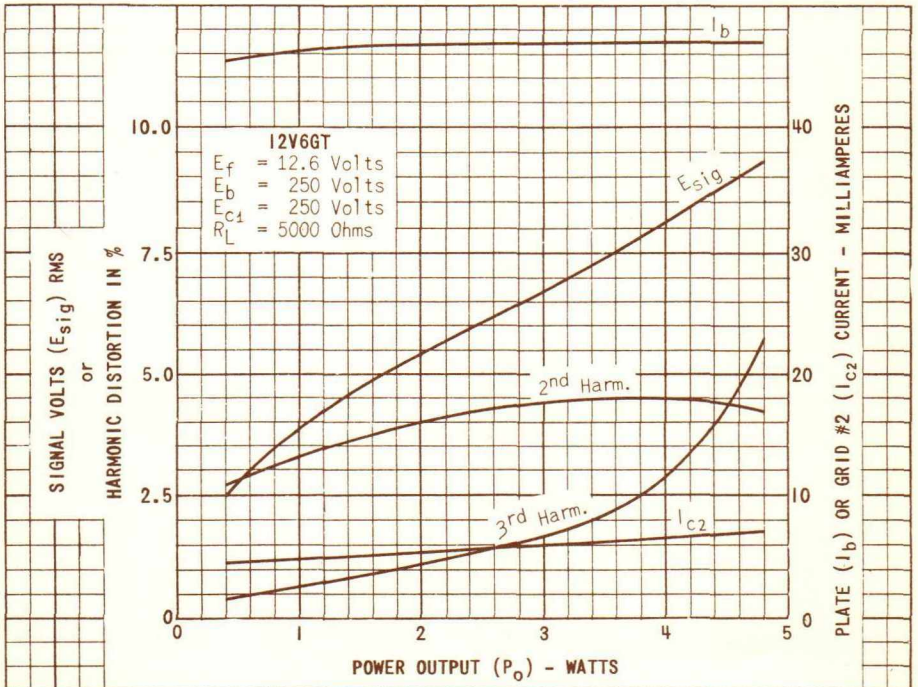
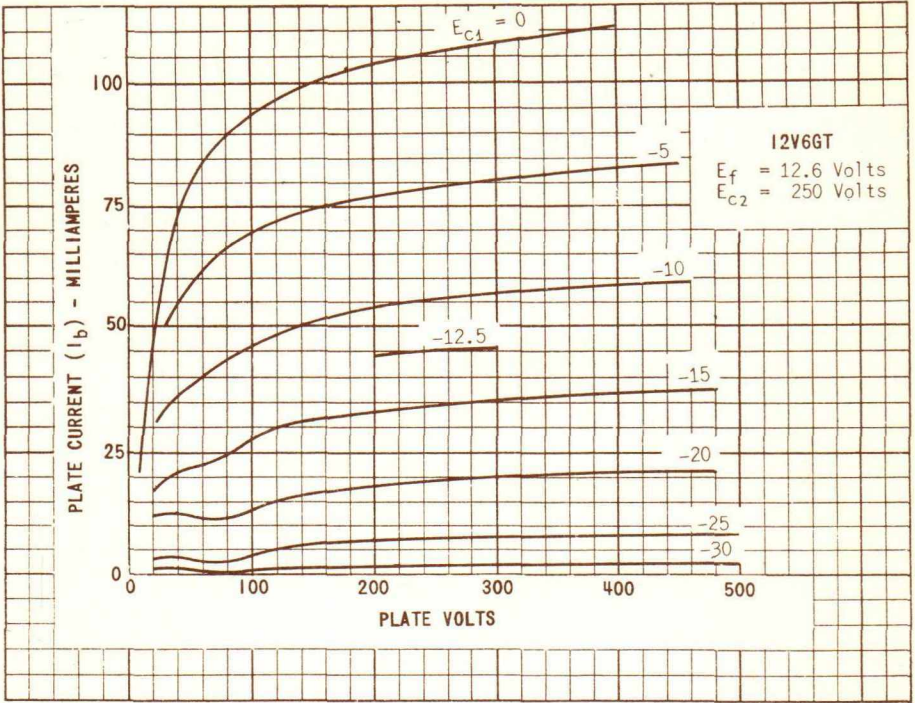
CLASS A<sub>1</sub> AMPLIFIER - PUSH-PULL

UNLESS OTHERWISE SPECIFIED, VALUES ARE FOR TWO TUBES.

|                                    |        |       |         |
|------------------------------------|--------|-------|---------|
| HEATER VOLTAGE                     | 12.6   | 12.6  | VOLTS   |
| HEATER CURRENT                     | 0.225  | 0.225 | AMP.    |
| PLATE VOLTAGE                      | 250    | 285   | VOLTS   |
| GRID #2 VOLTAGE                    | 250    | 285   | VOLTS   |
| GRID #1 VOLTAGE                    | -15    | -19   | VOLTS   |
| PEAK AF GRID #1 TO GRID #1 VOLTAGE | 30     | 38    | VOLTS   |
| ZERO-SIGNAL PLATE CURRENT          | 70     | 70    | MA.     |
| MAXIMUM-SIGNAL PLATE CURRENT       | 79     | 92    | MA.     |
| ZERO-SIGNAL GRID #2 CURRENT        | 5      | 4     | MA.     |
| MAXIMUM-SIGNAL GRID #2 CURRENT     | 13     | 13.5  | MA.     |
| PLATE-TO-PLATE LOAD RESISTANCE     | 10 000 | 8 000 | OHMS    |
| MAXIMUM-SIGNAL POWER OUTPUT        | 10     | 14    | WATTS   |
| TOTAL HARMONIC DISTORTION          | 5      | 3.5   | PERCENT |

CLASS A<sub>1</sub> AMPLIFIER - TRIODE CONNECTION

|                                            |       |       |
|--------------------------------------------|-------|-------|
| HEATER VOLTAGE                             | 12.6  | VOLTS |
| HEATER CURRENT                             | 0.225 | AMP.  |
| PLATE VOLTAGE                              | 250   | VOLTS |
| GRID VOLTAGE                               | -12.5 | VOLTS |
| PLATE CURRENT                              | 49.5  | MA.   |
| TRANSCONDUCTANCE                           | 5 000 | μMHOS |
| AMPLIFICATION FACTOR                       | 9.8   |       |
| PLATE RESISTANCE (APPROX.)                 | 1 960 | OHMS  |
| GRID VOLTAGE FOR $I_b = 0.5$ MA. (APPROX.) | -36   | VOLTS |



# 12V6GT (6V6GT)

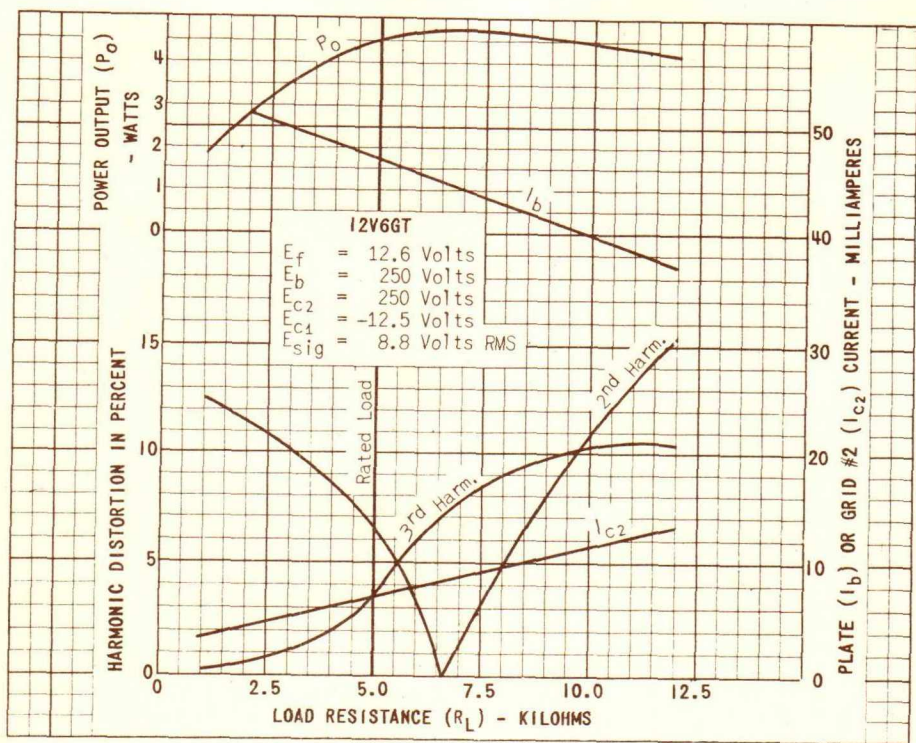


PLATE  
2996  
JULY 1  
1952