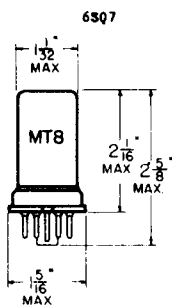
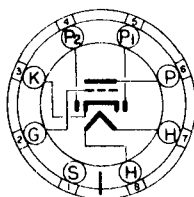


## TUNG-SOL

## DOUBLE-DIODE TRIODE



METAL SHELL



BOTTOM VIEW

SMALL WAFER  
8-PIN OCTAL

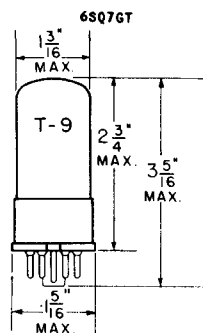
COATED UNIPOTENTIAL CATHODE

HEATER

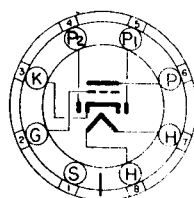
6.3 VOLTS 300 MA.

AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

SMALL WAFER  
8-PIN OCTAL  
METAL SLEEVE

THE 6SQ7 AND 6SQ7GT COMBINE TWO DIODE UNITS AND A HIGH-MU TRIODE IN A SINGLE ENVELOPE. EACH SECTION USES A COMMON CATHODE. IT IS INTENDED FOR SERVICE AS A COMBINED DETECTOR, AVC SOURCE, AND HIGH GAIN AUDIO AMPLIFIER.

## DIRECT INTERELECTRODE CAPACITANCES - APPROX.

|                         | 6SQ7 <sup>A</sup> | 6SQ7GT <sup>B</sup> |     |
|-------------------------|-------------------|---------------------|-----|
| GRID TO PLATE: (G TO P) | 1.6               | 1.8                 | μuf |
| INPUT: G TO (H + K)     | 3.2               | 4.2                 | μuf |
| OUTPUT: P TO (H + K)    | 3.0               | 3.4                 | μuf |

<sup>A</sup> WITH SHELL CONNECTED TO CATHODE.<sup>B</sup> WITH NO EXTERNAL SHIELD.

## RATINGS

INTERPRETED ACCORDING TO RMA STANDARD WB-210

|                                                              |     |       |
|--------------------------------------------------------------|-----|-------|
| HEATER VOLTAGE                                               | 6.3 | VOLTS |
| MAXIMUM HEATER-CATHODE VOLTAGE                               | 90  | VOLTS |
| MAXIMUM PLATE VOLTAGE                                        | 300 | VOLTS |
| MINIMUM DIODE CURRENT EACH PLATE<br>WITH 10 VOLTS APPLIED    | 0.8 | MA.   |
| MAXIMUM DIODE CURRENT EACH PLATE<br>FOR CONTINUOUS OPERATION | 1.0 | MA.   |

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE OR ADDITION.

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS  $A_1$  AMPLIFIER - TRIODE UNIT

|                      |         |        |       |
|----------------------|---------|--------|-------|
| HEATER VOLTAGE       | 6.3     | 6.3    | VOLTS |
| HEATER CURRENT       | 300     | 300    | MA.   |
| PLATE VOLTAGE        | 100     | 250    | VOLTS |
| GRID VOLTAGE         | -1      | -2     | VOLTS |
| PLATE CURRENT        | 0.4     | 0.9    | MA.   |
| PLATE RESISTANCE     | 110 000 | 91 000 | OHMS  |
| TRANSCONDUCTANCE     | 900     | 1 100  | μMHMS |
| AMPLIFICATION FACTOR | 100     | 100    |       |

## DIODE UNITS - TWO

THE TWO DIODE PLATES ARE PLACED AROUND THE CATHODE AND ARE INDEPENDENT OF THE TRIODE UNIT EXCEPT FOR THE COMMON CATHODE.

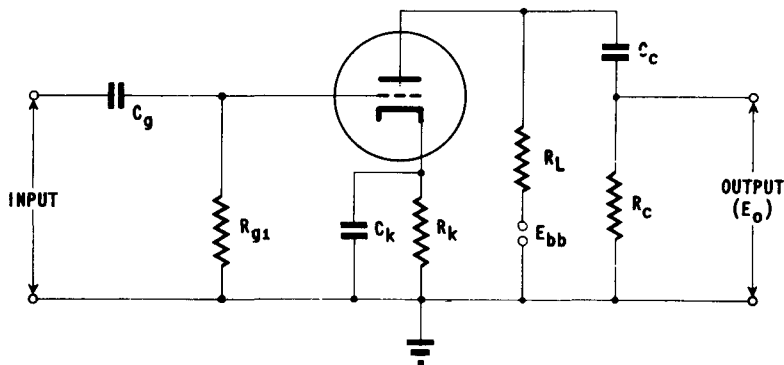
*SIMILAR TYPE REFERENCES:* Ratings and characteristics identical to 786.

| $R_1$<br>MEG. | $R_{g1}$<br>MEG. | $R_c$<br>MEG. | $E_{bb} = 90$ VOLTS |      |       | $E_{bb} = 180$ VOLTS |      |       | $E_{bb} = 300$ VOLTS |      |       |
|---------------|------------------|---------------|---------------------|------|-------|----------------------|------|-------|----------------------|------|-------|
|               |                  |               | $R_k$               | GAIN | $E_o$ | $R_k$                | GAIN | $E_o$ | $R_k$                | GAIN | $E_o$ |
| 0.10          | A                | 0.10          | 4300                | 22   | 5.0   | 2400                 | 29   | 15    | 2000                 | 31   | 28    |
| 0.10          | A                | 0.24          | 4700                | 27   | 7.0   | 2700                 | 35   | 20    | 2200                 | 38   | 37    |
| 0.24          | A                | 0.24          | 7500                | 31   | 7.5   | 4300                 | 42   | 20    | 3300                 | 46   | 36    |
| 0.24          | A                | 0.51          | 8200                | 40   | 10    | 4700                 | 50   | 26    | 3900                 | 52   | 50    |
| 0.51          | A                | 0.51          | 13000               | 39   | 9.5   | 7500                 | 53   | 24    | 5600                 | 58   | 47    |
| 0.51          | A                | 1.0           | 15000               | 43   | 11    | 8200                 | 58   | 31    | 6200                 | 62   | 56    |
| 0.24          | 10               | 0.24          | ---                 | 39   | 4.5   | ---                  | 45   | 19    | ---                  | 49   | 38    |
| 0.24          | 10               | 0.51          | ---                 | 45   | 6.5   | ---                  | 52   | 24    | ---                  | 57   | 48    |
| 0.51          | 10               | 0.51          | ---                 | 48   | 7.0   | ---                  | 59   | 22    | ---                  | 62   | 42    |
| 0.51          | 10               | 1.0           | ---                 | 52   | 8.5   | ---                  | 62   | 25    | ---                  | 66   | 55    |

<sup>A</sup> VALUE OF  $R_{g1}$  IS NOT CRITICAL.

GAIN MEASURED AT  $E_o = 2.0$  VOLTS RMS OUTPUT.

$E_o$  IS RMS OUTPUT FOR 5% TOTAL HARMONIC DISTORTION.



NOTE: COUPLING CAPACITORS  $C_g$  AND  $C_c$  SHOULD BE SELECTED TO GIVE DESIRED FREQUENCY RESPONSE.  $R_k$  SHOULD BE ADEQUATELY BY-PASSED BY CAPACITOR  $C_k$ .

→ INDICATES A CHANGE OR ADDITION

PLATE  
1926  
DEC. 1,  
1967

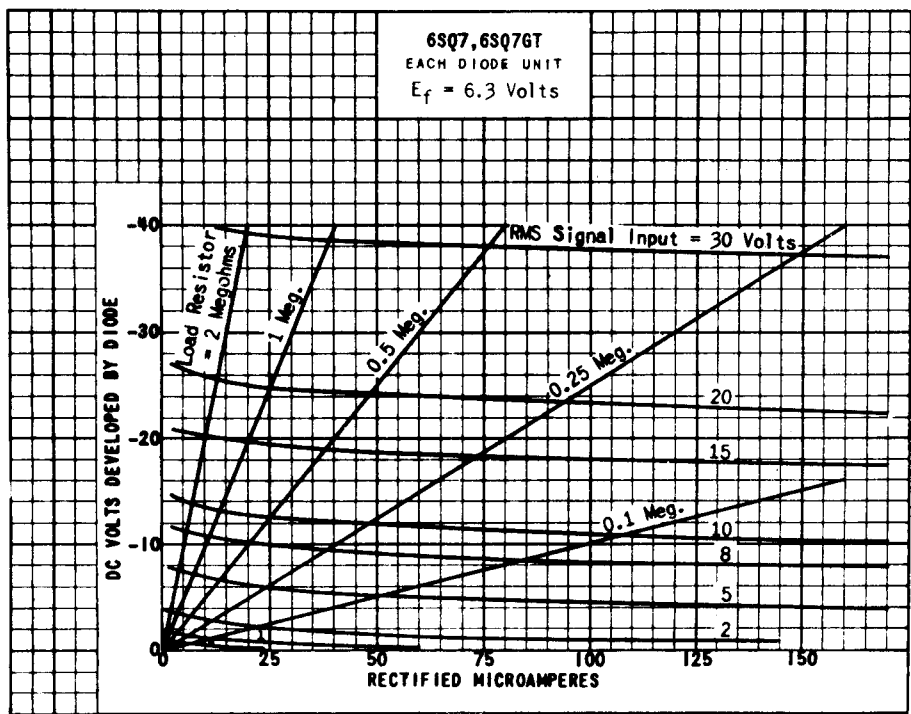
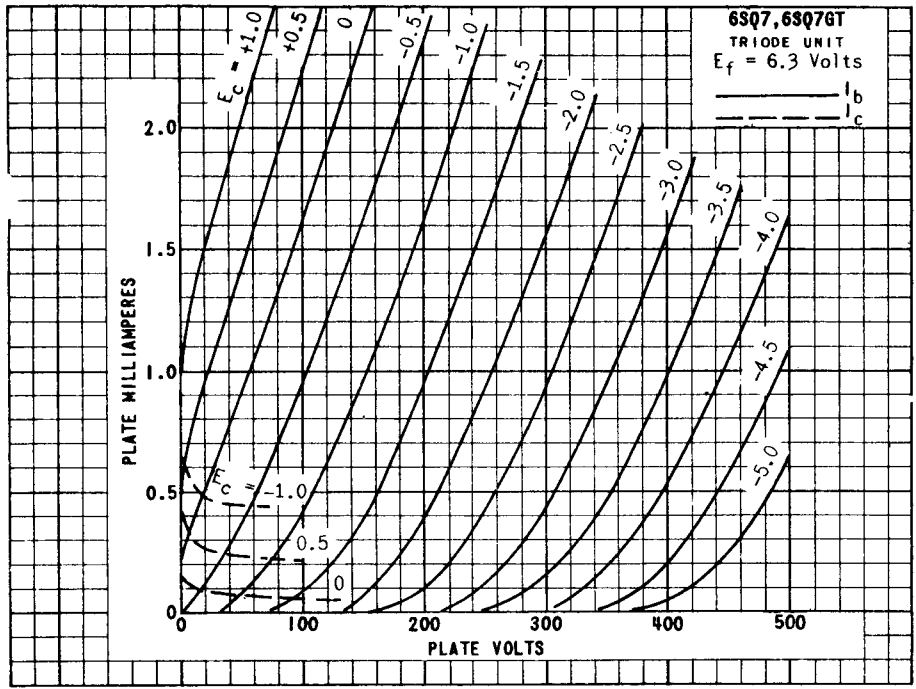


PLATE  
1967  
FEB. 2,  
1948

6SQ7,6SQ7GT

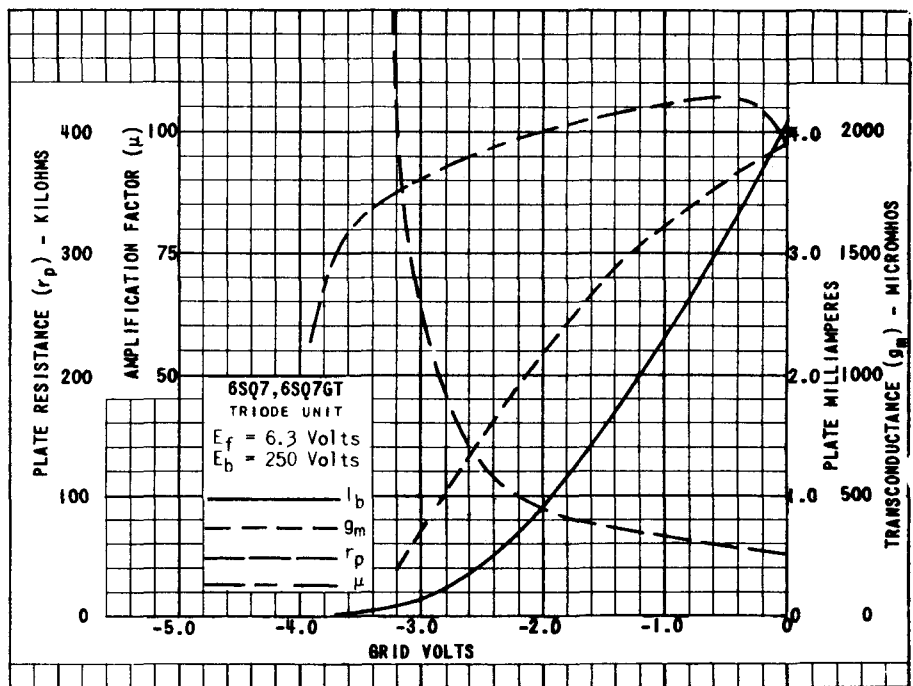
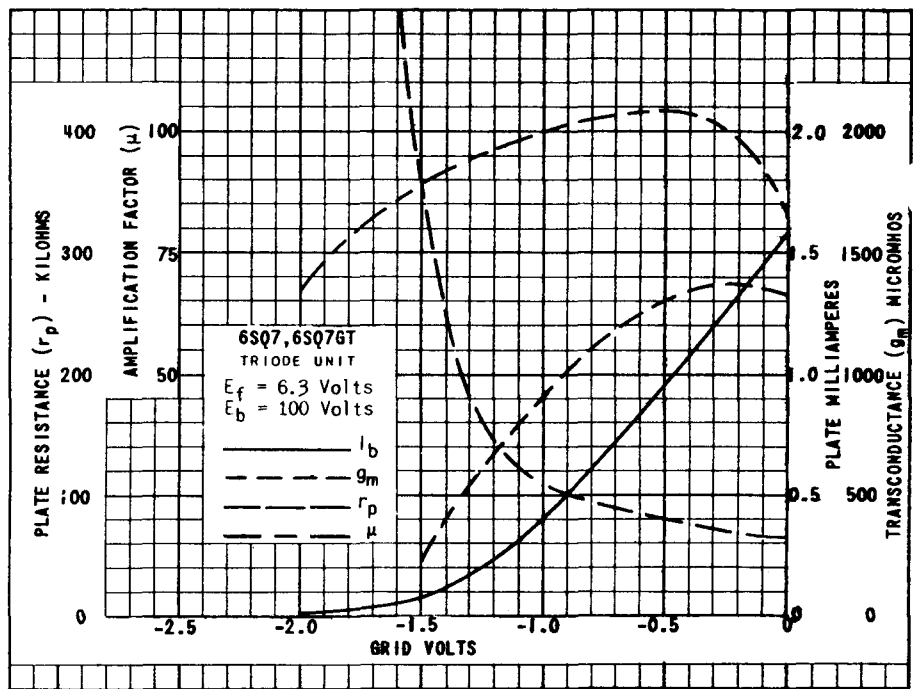


PLATE  
1968  
FEB. 2  
1948