DOUBLE TRIODE
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

HEATER

SERIES 12.6 VOLTS 450 MA.
PARALLEL 6.3 VOLTS 900 MA.

AC OR DC

ANY MOUNTING POSITION

For 12.6 volt operation apply heater voltage between pins #4 and #5. For 6.3 volt operation apply heater voltage between pin #6 and pins #4 and #5 connected together.

THE 5687 IS A GENERAL PURPOSE MEDIUM-MU DOUBLE TRIODE USING THE 9 PIN BUTTON ALL-GLASS CONSTRUCTION. EACH TRIODE IS ELECTRICALLY INDEPENDENT ALTHOUGH THE TWO HEATERS HAVE A COMMON CONNECTION. THE TUBE IS CHARACTERIZED BY HIGH PERVEANCE AND HIGH EMISSION CAPABILITIES.

DIRECT INTERELECTRODE CAPACITANCES
WITH NO EXTERNAL SHIELD
EACH TRIODE UNIT

GRID TO PLATE: (G TO P) 4.0 pf
GRID TO CATHODE: (G TO K+H) 4.0 pf
PLATE TO CATHODE: (P TO K+H) 0.6 pf
SECTION #1 0.5 pf
SECTION #2 7.0 pf
HEATER TO CATHODE: (H TO K) 0.75 pf
PLATE TO PLATE: (1P TO 2P) APPROX. 0.025 pf
GRID TO GRID: (1G TO 2G) APPROX.

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

MAXIMUM HEATER-CATHODE VOLTAGE 90 VOLTS
MAXIMUM PLATE VOLTAGE 300 VOLTS
MAXIMUM INVERSE PLATE VOLTAGE 1000 VOLTS
MAXIMUM PLATE DISSIPATION (EACH UNIT) 4.2 WATTS
MAXIMUM TOTAL PLATE DISSIPATION (BOTH UNITS) 7.5 WATTS
MAXIMUM BULB TEMPERATURE (AT ANY PART OF ENVELOPE) 220° C
MAXIMUM DC GRID CURRENT (EACH UNIT) 6 MA.
MAXIMUM EXTERNAL GRID CIRCUIT RESISTANCE (EACH UNIT) 1 MEGOHM

CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
CLASS A1 AMPLIFIER - EACH UNIT

<table>
<thead>
<tr>
<th></th>
<th>VOLTS</th>
<th>AMP.</th>
<th>VOLTS</th>
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<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>120</td>
<td>180</td>
<td>250</td>
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<tr>
<td>GRID VOLTAGE</td>
<td>-2</td>
<td>-7</td>
<td>-12.5</td>
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<tr>
<td>PLATE CURRENT</td>
<td>36.0</td>
<td>23.0</td>
<td>12.0</td>
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<tr>
<td>PLATE RESISTANCE (APPROX.)</td>
<td>1550</td>
<td>2000</td>
<td>3000</td>
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<tr>
<td>TRANSCONDUCTANCE</td>
<td>11500</td>
<td>8500</td>
<td>5400</td>
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<tr>
<td>AMPLIFICATION FACTOR</td>
<td>18.0</td>
<td>17.0</td>
<td>16.0</td>
</tr>
<tr>
<td>GRID VOLTAGE FOR 1b = 100 mA (APPROX.)</td>
<td>-9.0</td>
<td>-14.0</td>
<td>-19.0</td>
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</tbody>
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5687
FOR EACH UNIT
\( E_f = 6.3 \) Volts

Plate Milliamperes vs. Plate Volts

Plate Milliamperes vs. Grid Volts