The CK6281 is a filament type pentode of subminiature construction designed primarily for use in resistance coupled audio frequency and direct coupled amplifiers. The tube features low battery drain, long life, small size, and low microphonic level. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.

MECHANICAL DATA

ENVELOPE: T-2X3 Glass
BASE: None (0.016” rinned flexible leads. Length: 1.5” min.
Spacing: 0.048” center-to-center)
TERMNL CONNECTIONS: (Red dot is adjacent to lead 1)
Lead 1 Plate
Lead 2 Grid #2
Lead 3 Filament, Positive;
Grid #3
MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCES: (μfd)
Grid to Plate
Input
Output
0.01 max.
2.5
3.4

RATINGS - ABSOLUTE MAXIMUM VALUES:
Filament Voltage
Plate Voltage
Grid #2 Voltage
Cathode Current
0.625±20% volts
25 volts
25 volts
0.1 ma.

CHARACTERISTICS AND TYPICAL OPERATION:
Filament Voltage
Plate Voltage
Grid #2 Voltage
Grid #1 Voltage
Plate Current
Grid #2 Current
Transconductance
Plate Resistance
0.625 volts
15 volts
15 volts
1.0 volts
50 μa.
20 μa.
105 μmhos
2.0 meg.

CHARACTERISTICS AND TYPICAL OPERATION - RESISTANCE COUPLED CLASS A1 AMPLIFIER:

<table>
<thead>
<tr>
<th>First Stage</th>
<th>Second Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filament Voltage</td>
<td>0.625</td>
</tr>
<tr>
<td>Filament Current</td>
<td>20</td>
</tr>
<tr>
<td>Plate and Grid #2 Supply Voltage</td>
<td>15</td>
</tr>
<tr>
<td>Grid #1 Voltage</td>
<td>0</td>
</tr>
<tr>
<td>Plate Resistor</td>
<td>1.0</td>
</tr>
<tr>
<td>Grid #2 Resistor</td>
<td>2.2</td>
</tr>
<tr>
<td>Average Voltage Gain (G1 to P)</td>
<td>26:1</td>
</tr>
<tr>
<td>Approx. Voltage Gain (G2 to P)</td>
<td>3:1</td>
</tr>
</tbody>
</table>

- The bulb is entirely coated with a metallic shield connected to lead 5.
- Control Grid should be returned through approximately 5 to 22 megohms to negative filament or bias voltage.
- Other plate and Grid #2 resistor values may be used to obtain less variation in voltage gain between tubes at the possible expense of less average gain.
- The values of voltage gain are quoted for a coupled load of 5 megohms, zero source impedance, and a 5 megohm grid resistor. The reactive impedances (C1a, Cout, Cg1, Cg2, Cl) are of such values that they have negligible effect upon the gain.

Tentative Data

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RECEIVING TUBE AND SEMICONDUCTOR OPERATIONS
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NEWTON 58, MASS.
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AVERAGE PLATE CHARACTERISTICS
(Triode Connected)

Conditions:
$E_f = 0.625$ Volts DC