The CK6397 is a filament type RF Power Pentode of subminiature construction designed for use as an intermittent duty cycle Class A or Class C amplifier such as in portable transceiver equipment or as a frequency doubler at output frequencies in the VHF Range. It is designed for dependable operation under conditions of shock and vibration usually found in mobile and aircraft applications. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard 8-pin subminiature sockets may be used by cutting the leads to a suitable length.

MECHANICAL DATA

ENVELOPE: T-3 Glass
BASE: Subminiature Button 8 Pin (0.017" tinned flexible leads.
       Length: 1.25" min.)

TERMINAL CONNECTIONS:
- Lead 1 Filament, negative
- Lead 2 No Connection
- Lead 3 Plate
- Lead 4 No Connection
- Lead 5 Filament center tap, Grid #3, (F+parallel)
- Lead 6 Grid #2
- Lead 7 Filament, positive
- Lead 8 Grid #1

MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCES: (µµµfd)

<table>
<thead>
<tr>
<th></th>
<th>Unshielded</th>
<th>Shielded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to Plate: (g1 to p)</td>
<td>0.06</td>
<td>0.055 max.</td>
</tr>
<tr>
<td>Input: g1 to (F+g2+g3)</td>
<td>2.6</td>
<td>2.75</td>
</tr>
<tr>
<td>Output: p to (F+g2+g3)</td>
<td>2.15</td>
<td>3.0</td>
</tr>
</tbody>
</table>

RATINGS - ABSOLUTE MAXIMUM VALUES:
- Filament Voltage (dc) 1.25/2.5 ±12% volts
- Plate Voltage 135 volts
- Grid #2 Voltage 135 volts
- Grid #1 Voltage 100 volts
- Plate Dissipation 1.5 watts
- Grid #2 Dissipation 0.6 watts
- Cathode Current 14 ma.
- Grid #1 Current 0.375 ma.
- Altitude 60,000 feet
- Impact 500 g

CHARACTERISTICS AND TYPICAL OPERATION - CLASS A AMPLIFIER:
- Filament Voltage 1.25/2.5 volts
- Filament Current 125/62.5 ma.
- Plate Voltage 125 volts
- Grid #2 Voltage 125 volts
- Grid #1 Voltage -7.5 volts
- Plate Current 7.25 ma.
- Grid #2 Current 1.2 ma.
- Transconductance 1950 µµµhos

CHARACTERISTICS AND TYPICAL OPERATION - FREQUENCY DOUBLER:
- Filament Voltage (dc) 1.25 volts
- Filament Current 125 ma.
- DC Plate Voltage 120 volts
- DC Grid #2 Voltage 120 volts
- Grid Bias Resistance 0.27 0.22 meg.
- Peak RF Grid Drive Voltage 65 80 volts
- Plate Current 6.5 7.5 ma.
- Grid #2 Current 2.0 2.50 ma.
- Grid #1 Current (approx.) 220 325 µµµ
- Useful Power Output 115 140 mw.
- Output Frequency 125 250 Mc.
AVERAGE PLATE CHARACTERISTICS

Conditions:
- $E_1 = 1.25 \text{ Vdc}$
- $E_2 = 125 \text{ Vdc}$
- $I_{c2}$
- $I_b$

Plate or Grid #2 Current - Ma.

Plate Voltage - Volts