GENERAL

This valve is identical to the PCF812/30FL2 except for the heater rating.

Heater Voltage \( V_h \) 6.3 V
Heater Current \( I_h \) 0.5 A

For all other data and curves please see PCF812/30FL2.
TRIODE BEAM TETRODE

GENERAL
This triode beam tetrode valve with separate cathodes is an improved 30FL1/PCE800 in which the construction and processing of the beam tetrode and triode have been optimised for use respectively as a sync. separator and line scan oscillator in TV receivers. The triode section has identical characteristics to the 6/30L2/ECC804.

Heater Current \( I_h \)
Heater Voltage \( V_h \)

<table>
<thead>
<tr>
<th>RATINGS</th>
<th>TRIODE</th>
<th>TETRODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Dissipation</td>
<td>2-0</td>
<td>3-0</td>
</tr>
<tr>
<td>Maximum Screen Grid Dissipation</td>
<td>1-0</td>
<td>W</td>
</tr>
<tr>
<td>Maximum Anode Voltage</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Maximum Screen Grid Voltage</td>
<td>250</td>
<td>V</td>
</tr>
<tr>
<td>Maximum Heater to Cathode Voltage (R.M.S.)</td>
<td>150*</td>
<td>150*</td>
</tr>
</tbody>
</table>

* Measured with respect to the higher potential heater pin.

INTER-ELECTRODE CAPACITANCES

| Grid 1 to Earth | \( C_{g1-E} \) | 7.8 | 8-0 | 9-1 |
| Anode Tetrode to Earth | \( C_{a-E} \) | 2-4 | 2-4 | 3-8 |
| Grid 1 to Anode Tetrode | \( C_{g1-ao} \) | 0-03 | 0-04 | 0-075 |
| Grid Triode to Earth | \( C_{g-E} \) | 2-2 | 2-4 | 3-25 |
| Anode Triode to Earth | \( C_{at-E} \) | 2-1 | 2-4 | 3-0 |
| Grid Triode to Anode Triode | \( C_{g-at} \) | 2-3 | 2-4 | 2-7 |
| Grid 1 to Anode Triode | \( C_{g1-at} \) | 0-0065 | 0-016 | 0-03 |
| Grid Triode to Anode Tetrode | \( C_{g1-aq} \) | 0-0073 | 0-012 | 0-015 |
| Anode Tetrode to Anode Triode | \( C_{aq-at} \) | 0-035 | 0-043 | 0-046 |
| Grid 1 to Grid Triode | \( C_{g1-gc} \) | 0-002 | 0-0055 | 0-0094 |

† In fully shielded socket without can.
§ With holder capacitance balanced out.
‡ Total capacity including B9A nylon phenolic holder without skirt or radial shield.
“Earth” denotes the electrodes of any second valve section and the remaining earthy potential electrodes of the section under measurement, heater and shields joined to cathode.

CHARACTERISTICS

| Anode Voltage | \( V_a \) | 200 | 170 | V
| Screen Grid Voltage | \( V_{g2} \) | — | 170 | V
| Control Grid Voltage | \( V_{g1} \) | —7-7 | —2-0 | V
| Anode Current | \( I_a \) | 10 | 10 | mA
| Screen Grid Current | \( I_{g2} \) | — | 2-5 | mA
| Mutual Conductance | \( g_m \) | 3-4 | 8-0 | mA/V
| Amplification Factor | \( \mu \) | 18 | — | —
| Inner Amplification Factor | \( h_{g1-g2} \) | — | 44 | —

MOUNTING POSITION—Unrestricted.

G. January, 1970

THORN RADIO VALVES AND TUBES LTD.
TETRODE SECTION

$I_a, \frac{I_{g2}}{V_{g1}}$

$I_a$
$I_{g2}$
TETRODE SECTION

$I_a, I_{g2}/V_a$

$I_a$

$I_{g2}$

$V_{g2} = 200V$

$V_0 = 0V$

$V_0 = -0.5V$

$V_0 = -1V$

$V_0 = -1.5V$

$V_0 = -2V$

$V_0 = -3V$

$V_0 = -3.5V$

$V_0 = -4V$

ANODE VOLTAGE ($V_a$) V

ANODE CURRENT ($I_a$) & SCREEN GRID CURRENT ($I_{g2}$) mA
TRIODE SECTION

$g_m / V_g$

CONTROL GRID VOLTAGE ($V_g$) V

MUTUAL CONDUCTANCE ($g_m$) mA/V

January, 1970
TETRODE SECTION

Used as limiter in a synchronising separator circuit.

THE NORMAL RANGE OF INPUT SIGNAL WOULD SWING TO $V_{g1}=0$ OR SLIGHTLY POSITIVE