HEPTODE FREQUENCY CHANGER

Heptode, primarily intended as frequency changer in battery-operated receivers, and suitable for A.V.C.

FILAMENT

This valve is suitable for D.C. operation only.

\[
\begin{align*}
V_f & = 1.4 \text{ V} \\
I_f & = 0.05 \text{ A}
\end{align*}
\]

CAPACITANCES

\[
\begin{align*}
c_{a-g4} & < 0.5 \ \mu\mu F \\
c_{out} & = 10.0 \ \mu\mu F \\
c_{g4-all} & = 7.0 \ \mu\mu F \\
c_{g2-g4} & = 0.4 \ \mu\mu F \\
c_{g1-g4} & = 0.2 \ \mu\mu F \\
c_{g1-g2} & = 0.9 \ \mu\mu F \\
c_{g2-all} & = 4.4 \ \mu\mu F \\
c_{g1-all} & = 4.0 \ \mu\mu F
\end{align*}
\]

TYPICAL OPERATING CONDITIONS

\[
\begin{align*}
V_a & = 90 \text{ V} \\
V_{g3+g5} & = 45 \text{ V} \\
V_{g2} & = 90 \text{ V} \\
V_{g4} & = 0 \text{ V} \\
I_a & = 0.6 \text{ mA} \\
I_{g3+g5} & = 0.7 \text{ mA} \\
I_{g2} & = 1.2 \text{ mA} \\
I_{g1} & = 35 \text{ mA} \\
R_{g1} & = 2.5 \text{ kOhms} \\
R_{g1} & = 200,000 \text{ ohms} \\
P_a & = 0.6 \text{ W} \\
S_C & = 250 \text{ kOhms} \\
S_C & = 5.0 \mu\mu A/V
\end{align*}
\]

CHARACTERISTICS OF OSCILLATOR SECTION (\(V_{osc} = 0\))

\[
\begin{align*}
V_a & = 90 \text{ V} \\
V_{g3+g5} & = 45 \text{ V} \\
V_{g4} & = 0 \text{ V} \\
V_{g2} & = 90 \text{ V} \\
V_{g1} & = 0 \text{ V} \\
S_m & = 550 \mu\mu A/V
\end{align*}
\]
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LIMITING VALUES

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_a$ max.</td>
<td>110 V</td>
</tr>
<tr>
<td>$V_{g3+g5(b)$ max.</td>
<td>110 V</td>
</tr>
<tr>
<td>$V_{g3+g5}$ max.</td>
<td>60 V</td>
</tr>
<tr>
<td>$V_{g2}$ max.</td>
<td>110 V</td>
</tr>
<tr>
<td>$I_{ko}$ max.</td>
<td>4 mA</td>
</tr>
<tr>
<td>$R_{g4}$ min.</td>
<td>1 M ohm</td>
</tr>
</tbody>
</table>

DIMENSIONS

ARRANGEMENT OF ELECTRODES AND BASE CONNECTIONS

OCTAL BASE

ISSUE 2

DK32 1546/2
HEPTODE FREQUENCY CHANGER

Heptode, primarily intended as frequency changer in battery-operated receivers, and suitable for A.V.C.

$g_e$ ($\mu A/V$)

$V_f = 1.4 \text{ V}$

$V_a = 90 \text{ V}$

$V_{gs} = 45 \text{ V}$

$V_{gs} = 0 \text{ V}$

$V_{g2} = 90 \text{ V}$

$V_R (R_g) = 200,000 \Omega$

- OBTAINED THROUGH 70,000$\Omega$ DROPPING RESISTOR FROM 90V SUPPLY

Mullard

ISSUE 2

DK32 1546/3