

Triode hexode with variable- μ characteristics

UCH 42

HEATER

V_h 14.0 V I_h 0.1 A Suitable for series operation, A.C. or D.C.

CAPACITANCES

Similar to Type ECH 42, see page 49

OPERATING CONDITIONS

Hexode Section (see Fig. 7, page 58)

$V_a = V_b$	100	V
R_1	18	K Ω
R_2	27	K Ω
R_k	220	Ω
R_{gt+g3}	47	K Ω
I_{gt+g3}	100	μA
V_{g2+g4}	41	59.5 V
V_{g1}	-1.0	-9.5 V
I_a	1.2	0.07 mA
I_{g2+g4}	1.75	0.055 mA
g_c	520	5.2 $\mu A/V$
r_a	0.85	9.0 M Ω
R_{eq}	36	K Ω

$V_a = V_b$	170	V
R_1	18	K Ω
R_2	27	K Ω
R_k	220	Ω
R_{gt+g3}	47	K Ω
I_{gt+g3}	170	μA
V_{g2+g4}	71	101 V
V_{g1}	-1.7	-19 V
I_a	2.5	0.15 mA
I_{g2+g4}	2.85	0.14 mA
g_c	610	12.2 $\mu A/V$
r_a	1.1	9.0 M Ω
R_{eq}	55	K Ω

$V_a = V_b$	200	V
R_1	18	K Ω
R_2	27	K Ω
R_k	220	Ω
R_{gt+g3}	47	K Ω
I_{gt+g3}	200	μA
V_{g2+g4}	84	119 V
V_{g1}	-2.0	-22 V
I_a	3.2	0.21 mA
I_{g2+g4}	3.35	0.17 mA
g_c	690	13.8 $\mu A/V$
r_a	1.25	8.0 M Ω
R_{eq}	64	K Ω

4 VALVE DATA PREFERRED TYPES

B FREQUENCY CHANGERS

UCH 42 (contd.)

Triode Section

V_b	100	170	200	V
R_{at}	22	22	22	K Ω
I_a	2.0	3.5	4.2	mA
R_{gt+g3}	47	47	47	K Ω
I_{gt+g3}	100	170	200	μ A
$V_{osc (r.m.s.)}$	4.7	8.0	9.4	V approx.

The effective mutual conductance of the triode section under the above conditions is approximately 0.5 mA/V

LIMITING VALUES

Heptode Section	Triode Section
$V_a (b) \text{ max.}$	550 V
$V_a \text{ max.}$	250 V
$p_a \text{ max.}$	0.8 W
$V_{g2+g4} (b) \text{ max.}$	550 V
$V_{g2+g4} \text{ max.}$	125 V
$p_{g2+g4} \text{ max.}$	0.3 W
$I_k \text{ max.}$	10 mA
$V_{b-k} \text{ max.}$	150 V
$V_a (b) \text{ max.}$	550 V
$V_a \text{ max.}$	175 V
$p_a \text{ max.}$	0.9 W
$V_{gt} \text{ max.} (I_{gt}=0.3 \mu A)$	-1.3 V
$I_k \text{ max.}$	5.5 mA

BASE :
B8A

DIMENSIONS :
L=60 mm
D=22 mm

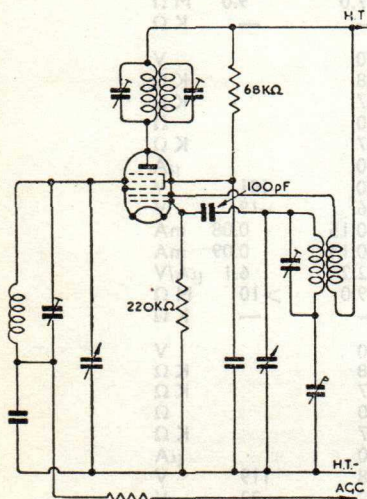


Fig. 2

Battery-operated Frequency Changer
Circuit using DK32 Heptode

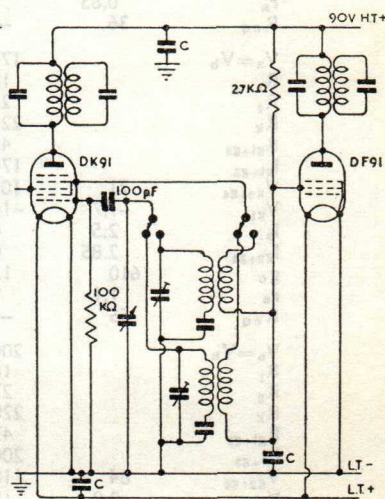


Fig. 3

Medium and Long Wave Battery-operated
Frequency Changer Circuit
using DK91 Heptode



4 VALVE DATA

PREFERRED TYPES

B FREQUENCY CHANGERS

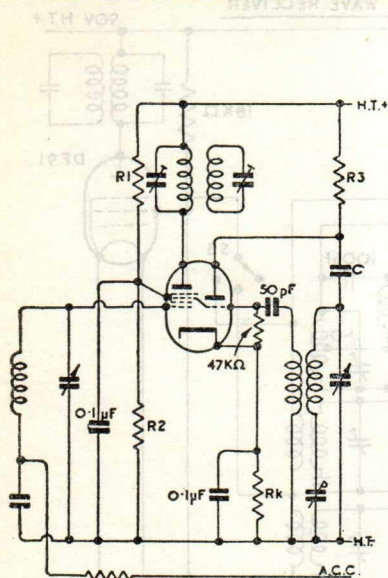


Fig. 7. A.C. Mains-operated Frequency Changer using CCH35, ECH35, ECH42 or UCH42 Triode-Hexode

Fig. 8. Mains - operated Frequency Changer using EK32 Octode

