

OCTODE FREQUENCY CHANGER

FC4

Octode frequency changer for use in a.c. mains
super heterodyne receivers.

FC13 & FC13C

OVERLEAF

HEATER

V_h	4.0	V
I_h	650	mA

CAPACITANCES

C_{a-g4}	0.06	pF
C_{in}	9.0	pF
C_{out}	12.5	pF
C_{g1-h}	9.4	pF
C_{g2-h}	6.1	pF
C_{g1-g4}	< 0.35	pF
C_{g2-g4}	< 0.25	pF

OPERATING CHARACTERISTICS

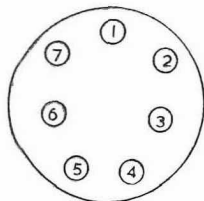
V_a	250	V
V_{g2}	90	V
V_{g3+g5}	70	V
I_a	1.6	mA
I_{g2}	2.0	mA
I_{g3+g5}	3.8	mA
V_{g4}	-1.5	V
g_c	600	$\mu A/V$
R_k	250	Ω

At $V_a=200V$, $V_{g2}=V_{g3+g5}=70V$ and $V_{osc(pk)}=12V$, the grid current (I_{g4}) reaches a value of $1.0\mu A$ for $V_{g4}=-0.1$ to $-0.95V$.

LIMITING VALUES

V_a max.	250	V
V_{g2} max.	90	V
V_{g3+g5} max.	70	V
R_{g4-k} max.	2.5	M Ω

CONNECTIONS



Viewed from free end of pins

Brit. 7-Pin Base

Pin No.	1	Oscillator anode (g_2)
"	2	Oscillator grid (g_1)
"	3	Screen grids ($g_3 + g_5$)
"	4	Heater
"	5	Heater
"	6	Cathode, metallising and suppressor grid
"	7	Anode
Top cap		Control grid (g_4)

DIMENSIONS

Overall length	135	mm
Overall diameter	47	mm

FC13

OCTODE FREQUENCY CHANGER

Octode frequency changer for use in d.c./a.c.
mains superheterodyne receivers.

FC13C

Except for basing and dimensions the FC13 and FC13C are identical.

HEATER

I_{H1}	200	mA
V_{H1}	13	V

CAPACITANCES

C_{a1-g4}	< 0.1	pF
C_{f111}	9.0	pF
C_{out}	12.5	pF
C_{g1-k}	9.4	pF
C_{g2-k}	6.1	pF
C_{g1-g4}	< 0.35	pF
C_{g2-g4}	< 0.25	pF

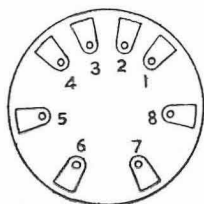
CHARACTERISTICS

V_{a1}	200	V
V_{g2}	90	V
V_{g3+g5}	70	V
I_{a1}	1.6	mA
I_{g2}	2.0	mA
I_{g3+g5}	3.8	mA
V_{g4}	-1.5	V
g_c	600	$\mu A/V$
R_k	250	Ω
$V_{osc(pk)}$	12	V

LIMITING VALUES

$V_{a1} \text{ max.}$	200	V
$V_{g2} \text{ max.}$	90	V
$V_{g3+g5} \text{ max.}$	90	V
$R_{g4-k} \text{ max.}$	2	M Ω

CONNECTIONS—FC13



Viewed from underside
of valve base

Contact No.	1	Metallising
"	2	Heater
"	3	Heater
"	4	Cathode and suppressor grid (g_0)
"	5	Oscillator anode (g_2)
"	6	Oscillator grid (g_1)
"	7	Screen grid (g_{3+s})
"	8	Anode
Top cap		Control grid (g_c)

DIMENSIONS—FC13

Overall length	118	mm
Overall diameter	47	mm

The basing and connections of the FC13C are identical to the FC4