

TRIODE HEXODE FREQUENCY CHANGER

ECH42

HEATER

V_h	6.3	V
I_h	230	mA

CAPACITANCES

C_{gt-g1}	<0.35	pF
C_{gt-ah}	<0.2	pF

Hexode Section

$C_{g1-h+k+g2+g4+skirt}$	4.0	pF
$C_{a-h+k+g2+g4+skirt}$	9.2	pF
C_{a-g1}	<0.1	pF
C_{g1-h}	<0.15	pF

Triode Section

$C_{gt-h+k+g2+g4+skirt}$	5.5	pF
$C_{at-h+k+g2+g4+skirt}$	2.3	pF
C_{at-gt}	1.2	pF

LIMITING VALUES

Hexode Section

V_a max.	250	V
p_a max.	1.5	W
V_{g2+g4} max. ($i_a=3$ mA)	125	V
V_{g2+g4} max. ($i_a<1$ mA)	250	V
p_{g2+g4} max.	300	mW
I_k max.	7.0	mA
R_{g1-k} max.	3.0	M Ω
R_{g3-k} max.	3.0	M Ω
V_{h-k} max.	50	V

Triode Section

V_a max.	175	V
p_a max.	800	mW
I_k max.	6.0	mA
R_{gt-k} max.	3.0	M Ω

CHARACTERISTICS

Triode Section

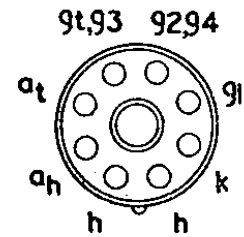
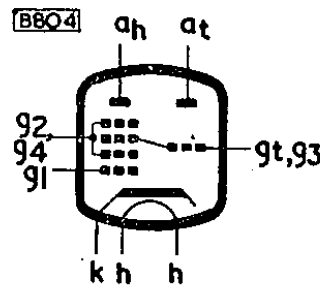
V_a	100	V
V_g	0	V
I_a	10	mA
g_m	2.8	mA/V
μ	22	

REPLACEMENT FOR:

X150, 6C10, 62TH—Direct.

ECH41—See page 106.

6C9—Screen resistors will require adjustment. Change bias resistor to 180 Ω . Receiver may require realigning.



B8A

DIMENSIONS

Max. Overall Length	60	mm
Max. Seated Height	53	mm
Max. Diameter	22	mm

OPERATING CONDITIONS AS A FREQUENCY CHANGER (with screen grid fed from a potentiometer—consisting of R_1 and R_2)

Hexode Section

$V_a=V_b$	250	V
R_1	27	k Ω
R_2	27	k Ω
R_k	180	Ω
R_{g3+gt}	47	k Ω
I_{g3+gt}	200	μ A
V_{g1}	-2.0	V
V_{g2+g4}	85	V
I_a	3.0	mA
I_{g2+g4}	3.0	mA
g_c	750	μ A/V
r_a	>1.0	M Ω
R_{eq}	75	k Ω
$\dagger V_{g1}$	-29	V

\dagger For 100 : 1 reduction in g_c

Triode Section

V_b	250	V
R_a	33	k Ω
R_{gt+gs}	47	k Ω
I_{gt+gs}	200	μ A
I_a	4.8	mA
g_m (effective)	550	μ A/V