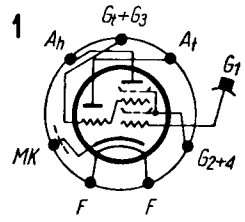
T.			U_f	I_f	Cl.	U_b	R_1	R_2	U_a	U_{g2+4}	U_{g1}	I_a	I_{g2+4}	I_{g3}	$S_c(S)$	μ	R_i	R_{g3}	R_k
			V	A		V	kΩ	kΩ	V	V	V	mA	mA	mA	μA/V	V/V	MΩ	kΩ	Ω
BCH 1	eur	1/2	24	0,18	mixer-hex.				200	50	−2 ÷ −20	1,3	4,5		750		0,7		180
					stat.-triod.				100		0	5			(1200)	10			
CCH 1	eur	3	20	0,2	mixer-hex.				200	50	−2 ÷ −20	2	3,2		750		0,9		250
					stat.-triod.				100		−1,5	9			(2000)	10			
CCH 2	eur	4	29	0,2															
TH 22 C	Mul	5	29	0,2	mixer-hex.	200	12,5	15	200	100	−2,5 ÷ −25	3,25	6	0,2	750 ÷ 7		1,5	50	140
TH 30 C	Mul	6	29	0,2															
TH 2320	Maz	5	23	0,2	stat.-triod.				100		0	9,5			(5500)	17,5			
TH 2620	Maz	5	26	0,2															
TH 13 C	Mul	5	13	0,31	mixer-hex.	250	10	25	250	70	−1,5 ÷ −45	4	6		1000 ÷ 1		1,5		100
TH 21 C	Mul	5	21	0,2															
21 TH 8	Tu	7	21	0,2	stat.-triod.				100		0	12			(2000)	15			
TH 233	Maz	8	23	0,2	mixer-hex.				175	100	−2,5 ÷ −34	3,1	6,9		770 ÷ 9		1		
TH 2321	Maz	5	23	0,2	stat.-triod.				100		0	24			(5300)	16			
					mixer-hex.	100	30	80	100	41	−1 ÷ − 9,5	0,6	1,4	0,1	510 ÷ 5,1		1	50	250
					mixer-hex.	200	30	80	200	80	−2 ÷ −17	2	3	0,16	680 ÷ 6,8		1	50	250
UCH 11	eur	9	20	0,1	stat.-hex.				250	125	maximum (I_k=15 mA; P_a=1,5 W; P_{g2+4}=0,5 W; $U_{f/k}$=200 V)								
					osc.-triod.	100	R_{aT}=		60			1,3						50	
VCH 11	TIf	9	38	0,05	osc.-triod.	200	=30 kΩ		115			2,85						50	
					stat.-triod.				100		0	12			(3000)	16,5			
					stat.-triod.				150		maximum (P_a = 1 W)								
X 31	MOG	5	13	0,3	mixer-hex.				200	70	−1,5	(I_k=7,6 mA)			640		0,75		200
					A 1(≈)				175	100	−2			0	(2500)				
					mixer-hept.				175	100	−2,5	3	6		650		2,2	47	180
10 C 1	Maz	10	28	0,1	stat.-hept.				250	250	maximum (I_k=10 mA; P_a=1 W; P_{g2+4}=0,75 W; $U_{f/k}$=200 V)								
					osc.-triod.				80			5							
					stat.-triod.				100		0	17			(4000)	17			

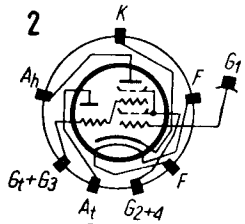
T.		C_{g1} pF	C_a pF	$C_{g1/a}$ pF	$C_{g1/g3}$ pF	$C_{g1/f}$ pF	$C_{g3/aT}$ pF
UCH 11	hex.	6,2	9,1	0,002	0,2	0,002	
	triod.	4,7	2,7	1,5			1,6
10 C 1	hept.	8,3	3	0,003	0,12		
	triod.	7,7	1,7	1,8			

Equivalents

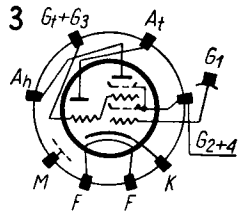
C 36 A	ER = TH 21 C	*TH 30*	Tu = TH 30 C
C 36 B	ER = TH 22 C	*TX 21*	Tu = TH 21 C
C 36 C	ER = TH 22 C	X 145	Marc = 10 C 1
TCCH 1	Tu = CCH 1	*24 M 2*	Low = BCH 1
TCCH 2	Tu = CCH 2	*24 M 3*	Low = CCH 1
TH 29	Tu = TH 30 C	*203 THA*	Cos = TH 21 C



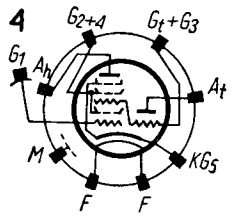
BCH1



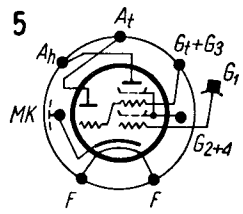
24M2



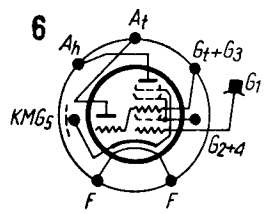
CCH1



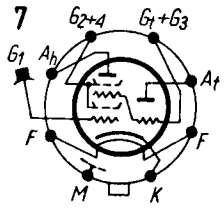
CCH2



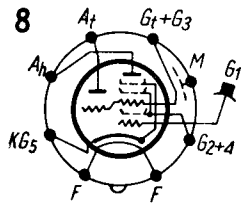
TH22C



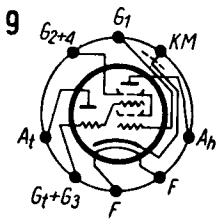
TH30C



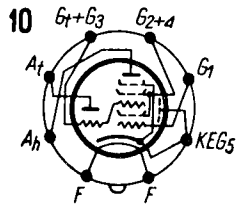
21TH8



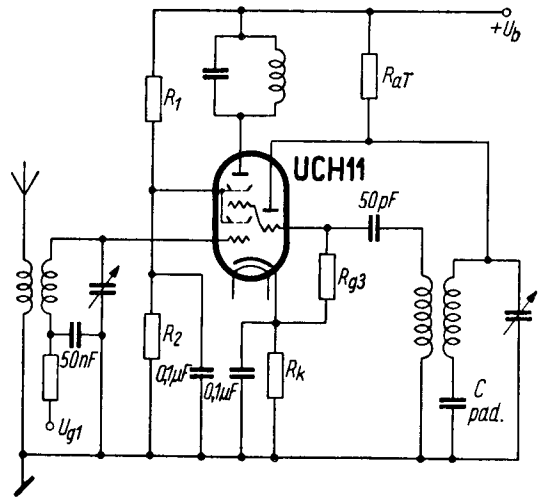
TH233

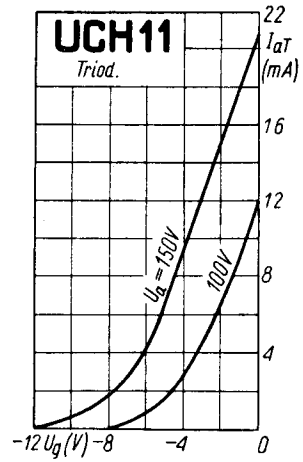


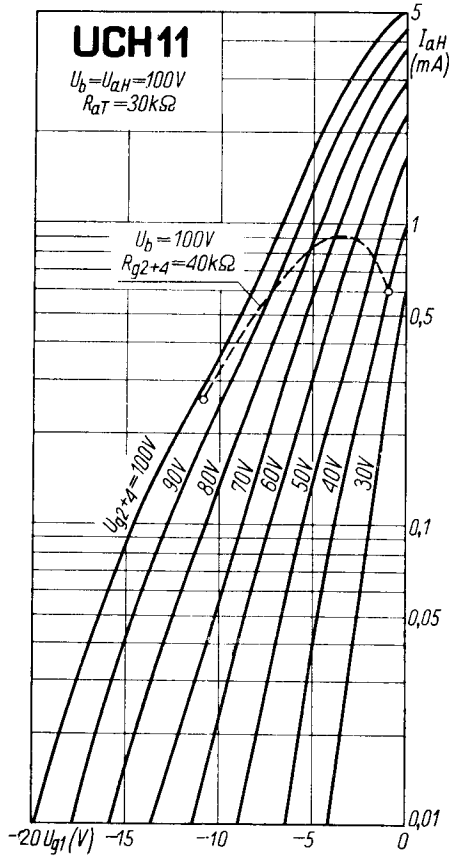
UCH11

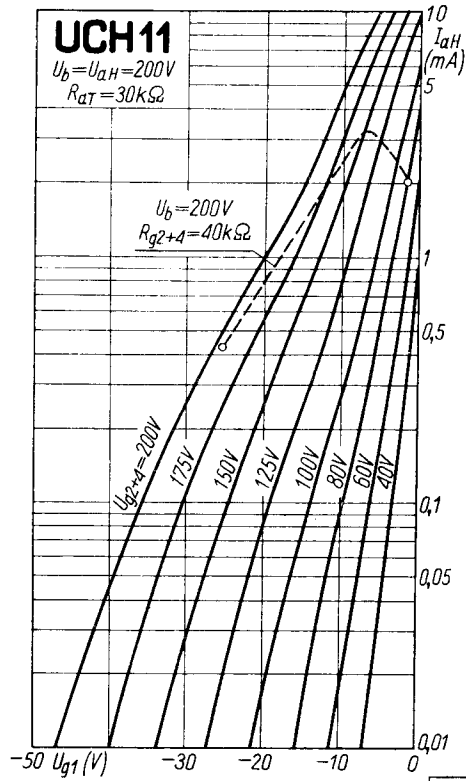


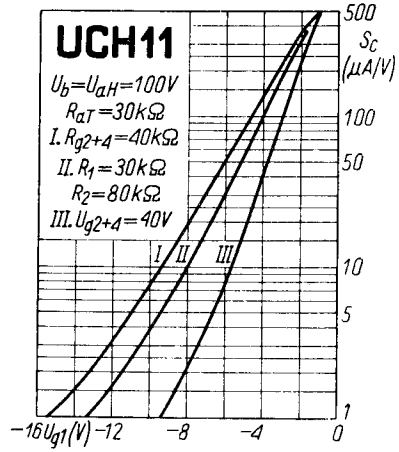
10C1

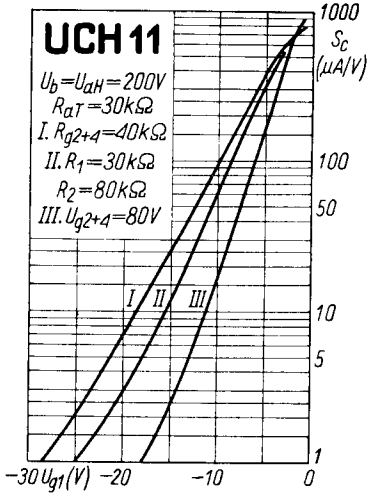


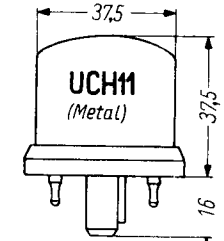


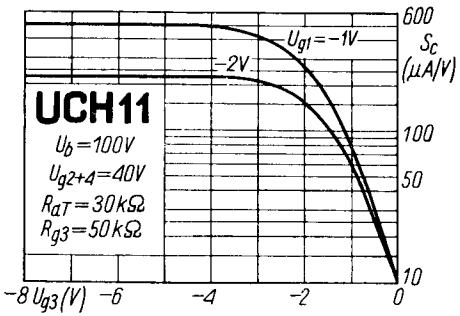

UCH11
$U_b = U_{aH} = 100V$
$R_{aT} = 30k\Omega$
$U_b = 100V$
$R_{g2+4} = 40k\Omega$
$U_{g2+4} = 100V$
90V
80V
70V
60V
50V
40V
30V
I_{aH} (mA)
5
1
0,5
0,1
0,05
0,01
$-20\ U_{g1}$ (V) −15 −10 −5 0

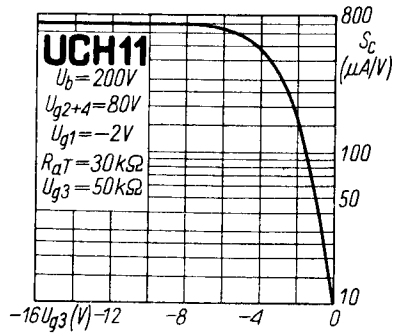

UCH11
$U_b = U_{aH} = 200V$
$R_{aT} = 30k\Omega$
$U_b = 200V$
$R_{g2+4} = 40k\Omega$
$U_{g2+4} = 200V$
175V
150V
125V
100V
80V
60V
40V
I_{aH} (mA)
10
5
1
0,5
0,1
0,05
0,01
−50 U_{g1} (V) −30 −20 −10 0

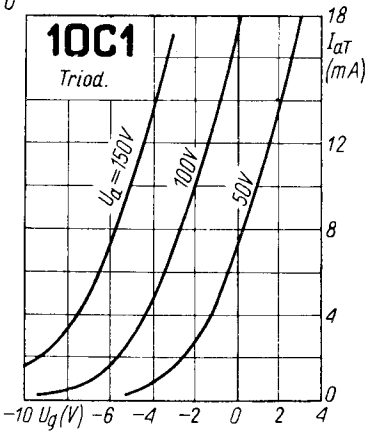

UCH11
$U_b = U_{aH} = 100V$
$R_{aT} = 30k\Omega$
I. $R_{g2+4} = 40k\Omega$
II. $R_1 = 30k\Omega$
$R_2 = 80k\Omega$
III. $U_{g2+4} = 40V$
I II III
S_c (μA/V)
500
100
50
10
5
1
$-16\ U_{g1}$ (V) −12 −8 −4 0

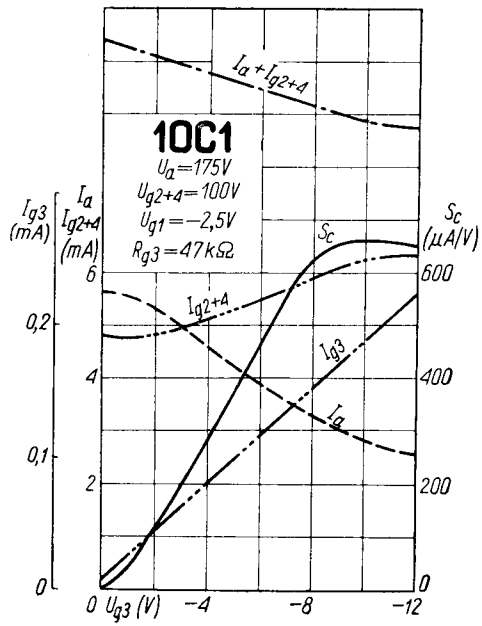

UCH11
$U_b = U_{aH} = 200V$
$R_{aT} = 30k\Omega$
I. $R_{g2+4} = 40k\Omega$
II. $R_1 = 30k\Omega$
$R_2 = 80k\Omega$
III. $U_{g2+4} = 80V$
I II III
S_c (μA/V)
1000
100
50
10
5
1
$-30\ U_{g1}$ (V) −20 −10 0


37,5
UCH11
(Metal)
37,5
16


UCH11
$U_b = 100V$
$U_{g2+4} = 40V$
$R_{aT} = 30k\Omega$
$R_{g3} = 50k\Omega$
$U_{g1} = -1V$
−2V
S_c (μA/V)
600
100
50
10
$-8\ U_{g3}$ (V) −6 −4 −2 0


UCH11
$U_b = 200V$
$U_{g2+4} = 80V$
$U_{g1} = -2V$
$R_{aT} = 30k\Omega$
$U_{g3} = 50k\Omega$
S_c (μA/V)
800
100
50
10
$-16\ U_{g3}$ (V) −12 −8 −4 0


10C1
Triod.
$U_a = 150V$
100V
50V
I_{aT} (mA)
18
12
8
4
0
−10 U_g (V) −6 −4 −2 0 2 4


10C1
$U_a = 175V$
$U_{g2+4} = 100V$
$U_{g1} = -2,5V$
$R_{g3} = 47k\Omega$
$I_a + I_{g2+4}$
I_{g2+4}
I_{g3}
I_a
S_c
I_{g3} (mA)
I_a I_{g2+4} (mA)
S_c (μA/V)
6
0,2
4
0,1
2
0
600
400
200
0
0 U_{g3} (V) −4 −8 −12