R.F. DOUBLE TRIODE

Double triode intended for use as oscillator, mixer or amplifier in television receivers.

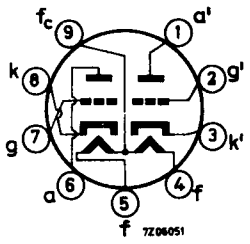
QUICK REFERENCE DATA (each unit)			
Anode current	I_a	10	mA
Transconductance	S	5.5	mA/V
Amplification factor	μ	60	-

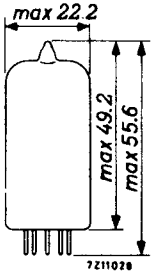
HEATING: Indirect by A.C. or D.C.; series or parallel supply

Heater voltage	V_f	6.3	12.6 V
Heater current	I_f	300[1])	150[1]) mA
		pins 9-(4+5)	pins 4-5

DIMENSIONS AND CONNECTIONS Dimensions in mm

Base: Noval





[1]) In case of series supply a current limiting device must be inserted in the heater circuit for limiting the current when switching on.

CAPACITANCES

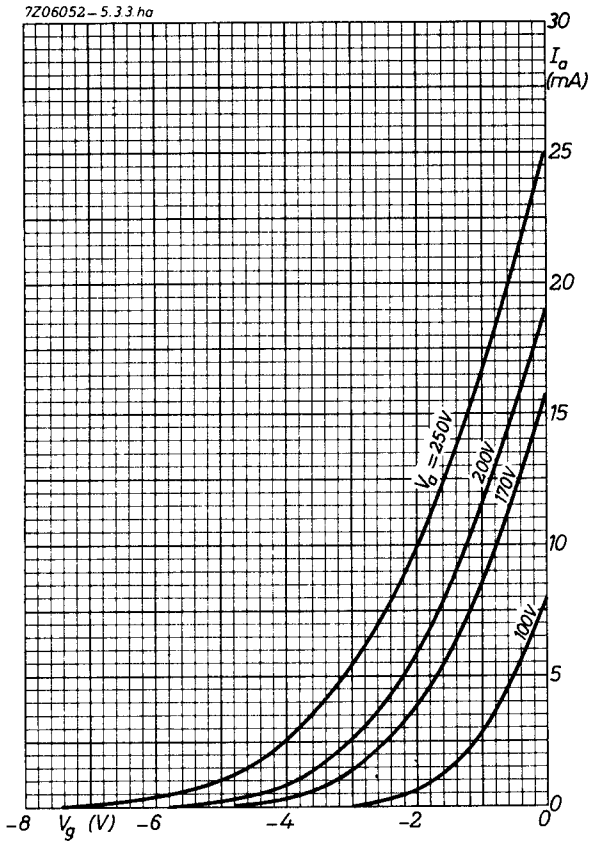
Grid to all except anode	$C_{g(a)}$		2.3	pF
	$C_{g'(a')}$		2.3	pF
Anode to all except grid	$C_{a(g)}$		0.45	pF
	$C_{a'(g')}$		0.35	pF
Anode to grid	C_{ag}		1.6	pF
	$C_{a'g'}$		1.6	pF
Anode to cathode	C_{ak}		0.20	pF
	$C_{a'k'}$		0.20	pF
Cathode to heater	C_{kf}		2.5	pF
	$C_{k'f}$		2.5	pF
Cathode to grid + heater	$C_{k/g+f}$		4.7	pF
	$C_{k'/g'+f}$		4.7	pF
Anode to grid + heater	$C_{a/g+f}$		1.9	pF
	$C_{a'/g'+f}$		1.8	pF
Grid to heater	C_{gf}	max.	0.17	pF
	$C_{g'f}$	max.	0.17	pF
Anode to anode	$C_{aa'}$	max.	0.4	pF
Grid to grid	$C_{gg'}$	max.	0.005	pF
Anode to grid other unit	$C_{ag'}$	max.	0.07	pF
Grid to anode other unit	$C_{ga'}$	max.	0.04	pF

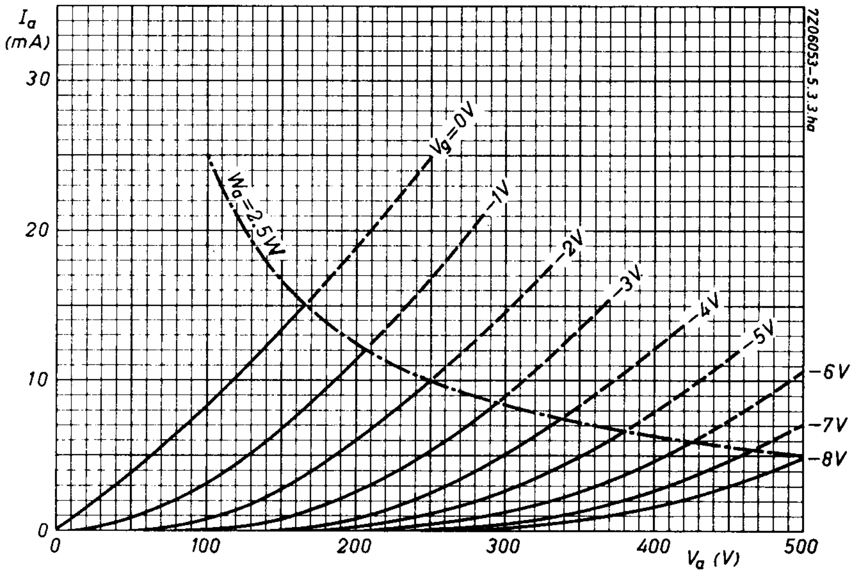
TYPICAL CHARACTERISTICS AND OPERATING CONDITIONS (each unit)

Anode voltage	V_a	100	170	200	250	V
Grid voltage	V_g	-1.0	-1.0	-1.0	-2.0	V
Anode current	I_a	3.0	8.5	11.5	10	mA
Transconductance	S	3.75	5.9	6.7	5.5	mA/V
Amplification factor	μ	62	66	70	60	
Internal resistance	R_i	16.5	11	10.5	11	kΩ

LIMITING VALUES (Design centre rating system) (each unit)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	300	V
Anode dissipation	W_a	max.	2.5	W
Cathode current	I_k	max.	15	mA
Grid voltage	$-V_g$	max.	50	V
Grid resistor (automatic bias)	R_g	max.	1	MΩ
Cathode to heater voltage	V_{kf}	max.	90	V


7Z06052 – 5.3.3 ha
30
I_a (mA)
25
20
15
10
5
0
V_b = 250V
200V
170V
100V
–8
V_g (V)
–6
–4
–2
0



I_a
(mA)
30
20
10
0
0
100
200
300
400
500
V_a (V)
Vg=0V
-1V
-2V
-3V
-4V
-5V
-6V
-7V
-8V
Wa=2.5W
7Z06053-5.3.3.ha

PHILIPS

Data handbook

Electronic components and materials

ECC81

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5	FP	1999.08.14