

## 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	$\mu$	60	-

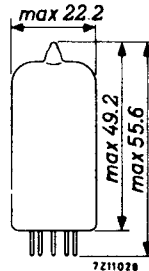
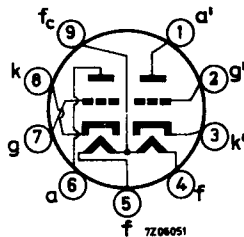
**HEATING:** Indirect by A.C. or D.C.; series or parallel supply

Heater voltage	$V_f$	6.3	12.6	V
Heater current	$I_f$	300 <sup>1)</sup>	150 <sup>1)</sup>	mA
		pins 9-(4+5)	pins 4-5	

### DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval



<sup>1)</sup> In case of series supply a current limiting device must be inserted in the heater circuit for limiting the current when switching on.

**CAPACITANCES**

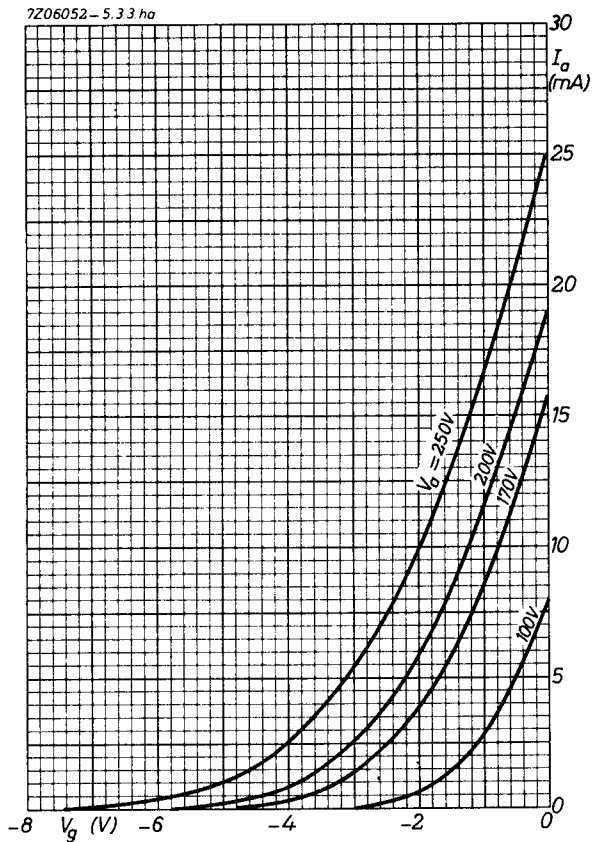
Grid to all except anode	$C_{g(a)}$		2.3	pF
	$C_{g'(a')}$		2.3	pF
Anode to all except grid	$C_{a(g)}$		0.45	pF
	$C_{a'(g')}$		0.35	pF
Anode to grid	$C_{ag}$		1.6	pF
	$C_{a'g'}$		1.6	pF
Anode to cathode	$C_{ak}$		0.20	pF
	$C_{a'k'}$		0.20	pF
Cathode to heater	$C_{kf}$		2.5	pF
	$C_{k'f}$		2.5	pF
Cathode 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

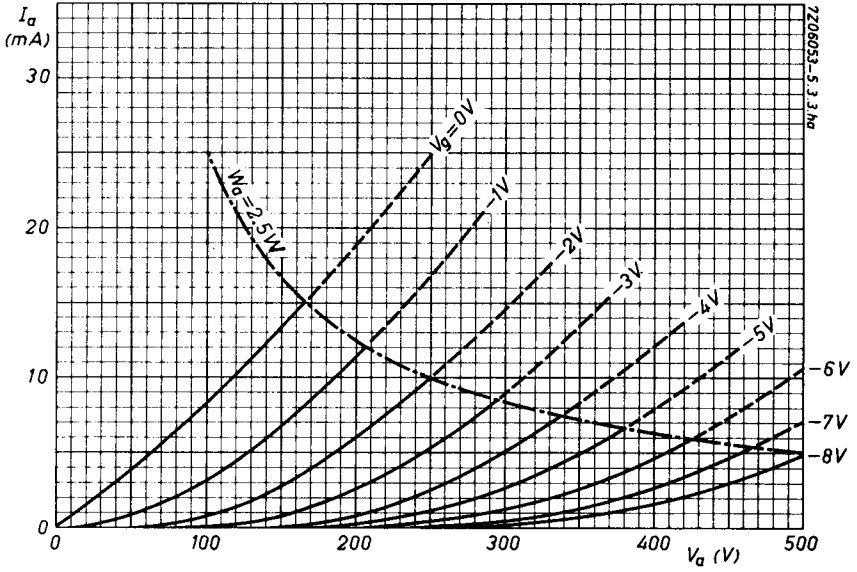
**TYPICAL CHARACTERISTICS AND OPERATING CONDITIONS** (each unit)

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	$\mu$	62	66	70	60	
Internal resistance	$R_i$	16.5	11	10.5	11	k $\Omega$

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

Anode voltage	$V_{aO}$	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	M $\Omega$
Cathode to heater voltage	$V_{kf}$	max.	90	V





# PHILIPS

Data handbook



Electronic  
components  
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## ECC81

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