

VOLTAGE AMPLIFYING TRIODES D

OPERATING CONDITIONS

As R.C. coupled A.F. amplifier

ECC 40
(contd.)

V_b (V)	I_a (mA)	R_k (Ω)	V_{ont} V_{in}	V_{out}^* (V_{rms})	D_{tot} (%)	$R_{g\uparrow}$ (K Ω)
400	7	4.1	1,200	21	72.5	4.4
350	7	3.6	1,200	20.5	60	4.1
300	7	3.1	1,200	20	50	4.0
250	47	2.6	1,200	20	40	3.8
200	47	2.0	1,200	20	29.5	3.4
400	100	2.2	2,200	24.5	76	3.9
350	100	1.9	2,200	24	65	3.9
300	100	1.6	2,200	24	54	3.8
250	100	1.4	2,200	24	44	3.7
200	100	1.1	2,200	24	33	3.6
400	220	1.1	3,900	25	72	3.8
350	220	1.0	3,900	25	63	3.7
300	220	0.87	3,900	25	53	3.7
250	220	0.72	3,900	25	44	3.6
200	220	0.58	3,900	24.5	32	3.5

*Output voltage at start of I_g , at lower output voltages the distortion is reduced in proportion.

†Grid resistance of the following valve.

LIMITING VALUES

Each section

$V_{a(b)}$ max.	550	V
V_a max.	300	V
p_a max.	1.5	W
I_k max.	10	mA
R_{g-k} max.	1	M Ω
V_{h-k} max.	175	V



BASE :
B8A

DIMENSIONS :
L=67 mm
D=22 mm

Miniature double triode

ECC 91

HEATER

V_h 6.3 V I_h 0.45 A Suitable for A.C. mains operation

For use in
transmitters
see Section H,
page 130

CAPACITANCES

Each section

C_{a-g}	1.6	$\mu\mu F$
C_{g-k}	2.2	$\mu\mu F$
C_{a-k}	0.4	$\mu\mu F$



4 VALVE DATA PREFERRED TYPES

D VOLTAGE AMPLIFYING TRIODES

ECC 91 CHARACTERISTICS

(contd.) Each section

V_a	100	V
V_g	-0.85	V
I_a	8.5	mA
R_k	50	Ω^*
g_m	5.3	mA/V
μ	38	
r_a	7.1	K Ω

*Value for both sections working under specified conditions

LIMITING VALUES



V_a max.	300	V
p_a max.	2×1.5	W
V_g max.	-40	V
I_g max.	2×8	mA
V_{h-k} max.	100	V
R_{g-k} max. (self bias)	0.5	M Ω

BASE :
B7G

DIMENSIONS :

L=54 mm
D=19 mm

KBC 32 Double diode triode

FILAMENT

V_f 2.0 V I_f 0.05 A Suitable for D.C. operation only

CAPACITANCES

C_{a-f}	7.0	μF
C_{g-f}	1.9	μF
C_{a-g}	3.1	μF
C_{ad-all} (each section)	2.5	μF
$C_{ad'-ad''}$	< 0.5	μF
C_{ad-g} (each section)	< 0.05	μF
$C_{ad'-at}$	< 0.6	μF
$C_{ad''-at}$	< 0.3	μF

CHARACTERISTICS

V_a	100	V
V_g	0	V
I_a	2.4	mA
g_m	1.2	mA/V
μ	25	
r_a	21	K Ω

TYPICAL OPERATING CONDITIONS

As R.C. coupled A.F. amplifier

$V_{a(b)}$	120	120	V
R_a	47	100	K Ω
V_g	-1.5	-0.9	V
I_a	0.6	0.5	mA

LIMITING VALUE



V_a max.
BASE :
Octal

DIMENSIONS :

L=110 mm
D=33 mm

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