EL 91 (contd.)

LIMITING VALUES

V_a max.	250	V
V_{g_2} max.	250	V
p_a max.	4.0	W
p_{g_2} max.	0.6	W
I_k max.	25	mA
V_{h-k} max.	50	V
R_{g_1-k} max. (cathode bias)	0.7	MΩ

BASE : B7G

DIMENSIONS : L=54 mm, D=19 mm

KL 35 Output pentode

FILAMENT
V_f 2.0 V I_f 0.15 A Suitable for D.C. operation only

CHARACTERISTICS

V_a	135	V
V_{g_2}	135	V
I_a	5.6	mA
g_m	2.2	mA/V
r_a	0.15	MΩ

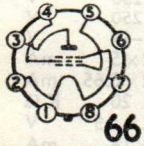
OPERATING CONDITIONS
As single Class " A " amplifier

	Fixed bias	*Self bias*	
V_a	135	135	V
V_{g_2}	135	135	V
V_{g_1}	−4.5	−4.8	V
I_a	5.6	5.0	mA
R_a	19	20	KΩ
$V_{in(r.m.s.)}$	3.0	2.9	V
P_{out}	340	310	mW
D_{tot}	10	10	%

LIMITING VALUES

V_a max.	150	V
p_a max.	1.0	W
V_{g_2} max.	150	V
I_k max.	10	mA
R_{g_1-f} (fixed bias) max.	1.0	MΩ
R_{g_1-f} (self bias) max.	1.5	MΩ
*V_{g_1} (I_{g_1}=+1 μA)	+0.3 to +0.8	V

*At V_a=V_{g_2}=135 V



BASE: Octal

DIMENSIONS: L=106 mm, D=41 mm

KLL 32 Double output pentode

FILAMENT
V_f 2.0 V I_f 0.3 A Suitable for D.C. operation only

CHARACTERISTICS

KLL 32 (contd.)

V_a	100	V
V_{g2}	100	V
V_{g1}	0	V
g_m	2.6	mA/V

OPERATING CONDITIONS

V_a	90	120	135	V
V_{g2}	90	120	135	V
$I_{a(o)}$	2.8	3.3	3.8	mA
I_a (max. sig.)	9.8	14.4	16.9	mA
V_{g1}	−7.4	−10.2	−11.3	V
I_{g2} (max. sig.)	2.8	4.6	5.7	mA
$V_{in\ (r.m.s.)}$	5.2	7.3	8.4	V
P_{out}	0.45	0.94	1.2	W
D_{tot}	1.8	2.5	2.8	%
R_{a-a}	16	16	16	KΩ

84

BASE: Octal

DIMENSIONS: L=101 mm, D=41 mm

Output pentode. Suitable for use in frame time base or audio output stage of series operated television receivers

PL 33

HEATER

V_h 19 V I_h 0.3 A Suitable for series operation, D.C. or A.C.

CAPACITANCE

C_{a-g1}	1.0	μμF

OPERATING CONDITIONS

As single Class "A" amplifier

V_a	175	200	225	V
V_{g2}	175	200	225	V
R_k	150	150	150	Ω
V_{g1}	−4	−4.65	−5.3	V
I_a	24	28	32	mA
I_{g2}	2.6	3.0	3.4	mA
g_m	8	8.6	9	mA/V
r_a	60	55	50	KΩ
μ_{g1-g2}	23	23	23	
R_a	7	7	7	KΩ
$V_{in\ (r.m.s.)}$ (D_{tot}=10%)	—	—	3.4	V
P_{out} (D_{tot}=10%)	—	—	3.3	W
$V_{in\ (r.m.s.)}$ (start of I_{g1})	2.6	3.1	3.6	V
P_{out} (start of I_{g1})	1.8	2.55	3.45	W
D_{tot} (start of I_{g1})	8.8	10	11	%