

VARIABLE-MU R.F. PENTODE

EF85

High slope variable-mu r.f. pentode, primarily intended for use in television receivers.

HEATER

Suitable for series or parallel operation, a.c. or d.c.

V_h	6.3	V
I_h	300	mA

CAPACITANCES (measured without an external shield)

C_{in}	7.2	pF
C_{out}	3.7	pF
C_{a-g1}	< 7.0	mpF
C_{g1-h}	< 150	mpF

CHARACTERISTICS

$V_b = V_a$	250	V
V_{g3}	0	V
R_{g2}	60	k Ω
V_{g2}	100	V
I_a	10	mA
I_{g2}	2.5	mA
V_{g1}	-2.0	V
g_m	6.0	mA/V
r_a	500	k Ω
R_{eq}	1.5	k Ω

OPERATING CONDITIONS (See circuit on page D2)

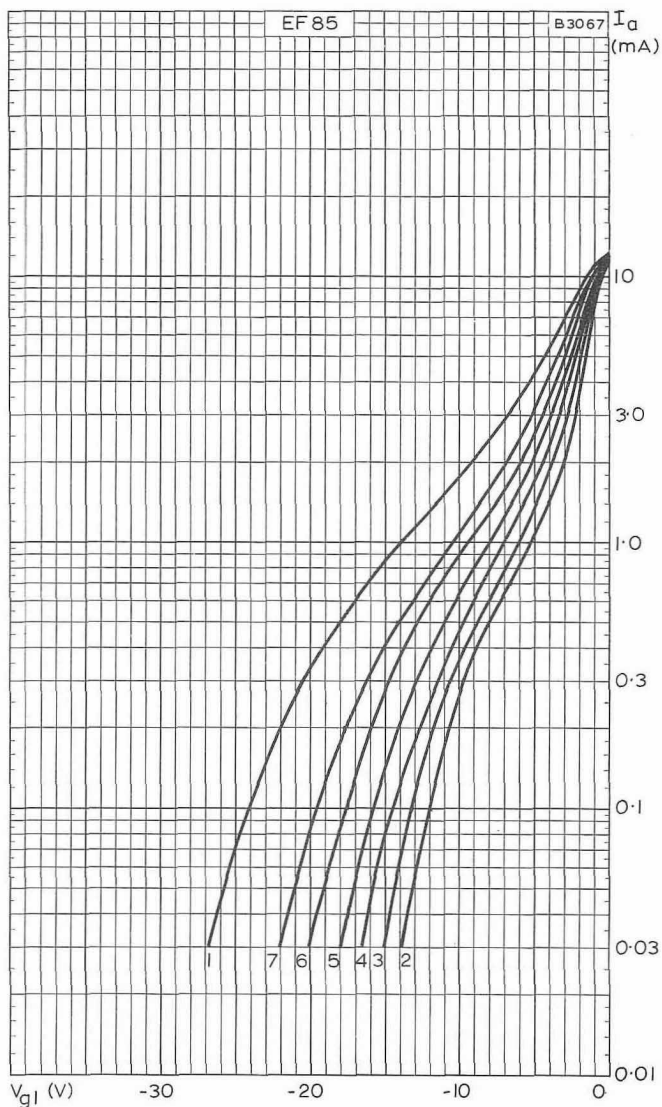
Condition	1	2	3	4	
V_b	190	190	190	190	V
R_{g2}	22	6.8	8.2	10	k Ω
$R_{g2-c'}$	—	8.2	12	18	k Ω
R_{k1}	47	47	47	47	Ω
R_{k2}	100	56	68	82	Ω
I_a	11.8	9.2	9.6	10	mA
I_{g2}	3.0	2.2	2.2	2.5	mA
g_m	6.0	5.7	5.8	6.0	mA/V
V_{g1} for 60 : 1 reduction in g_m	-18.5	-9.0	-10	-11	V
I_{total}	15	23.5	20.5	18.5	mA
Condition	5	6	7		
V_b	190	190	190		V
R_{g2}	12	15	18		k Ω
$R_{g2-c'}$	27	47	82		k Ω
R_{k1}	47	47	47		Ω
R_{k2}	82	82	82		Ω
I_a	10.7	11.3	11.7		mA
I_{g2}	2.5	2.7	2.8		mA
g_m	6.0	6.2	6.0		mA/V
V_{g1} for 60 : 1 reduction in g_m	-12	-13.5	-15		V
I_{total}	17.5	16.5	16		mA

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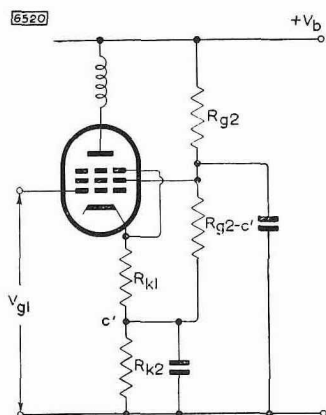
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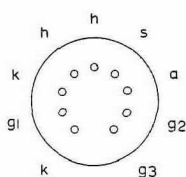
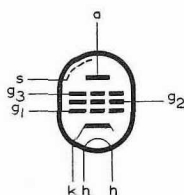
ANODE CURRENT PLOTTED AGAINST CONTROL-GRID VOLTAGE
UNDER CONDITIONS 1 to 7 (See page D1)



LIMITING VALUES

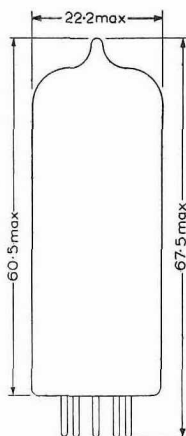
$V_{a(b)}$ max.	550	V
V_a max.	300	V
p_a max.	2.5	W
$V_{g2(b)}$ max.	550	V
V_{g2} max.	300	V
p_{g2} max.	650	mW
I_{k1} max.	15	mA
R_{g1-k} max.	3.0	MΩ
V_{h-k} max.	150	V
R_{h-k} max.	20	kΩ

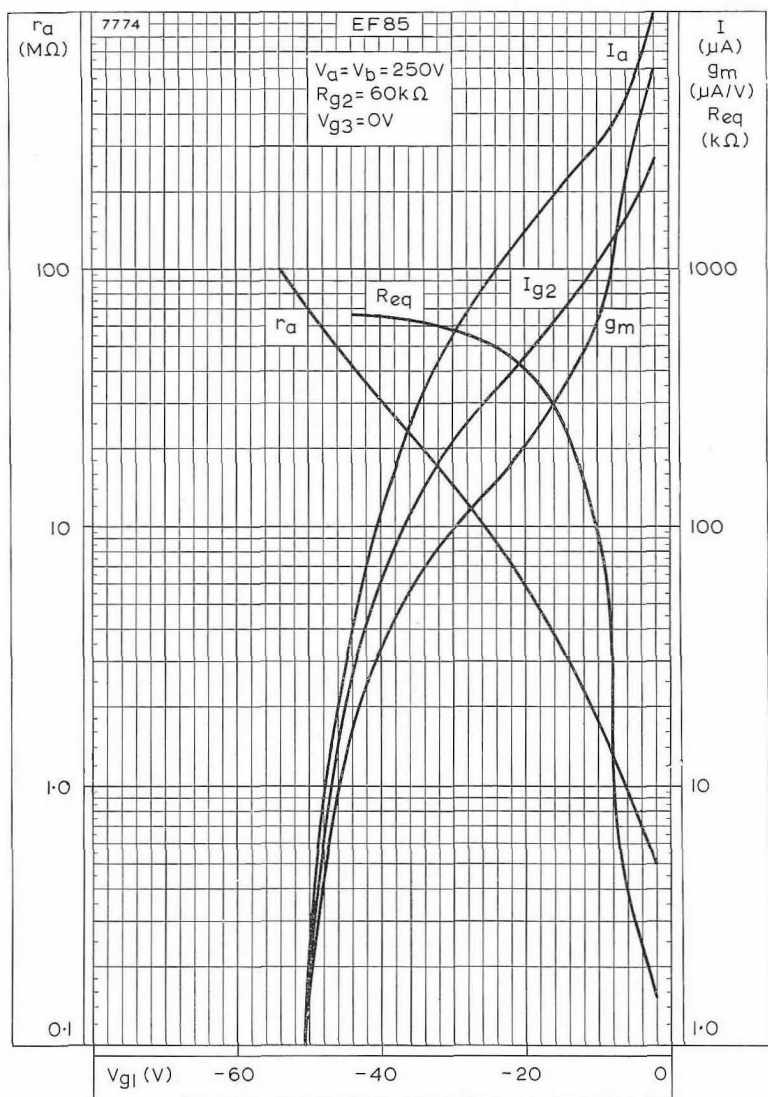
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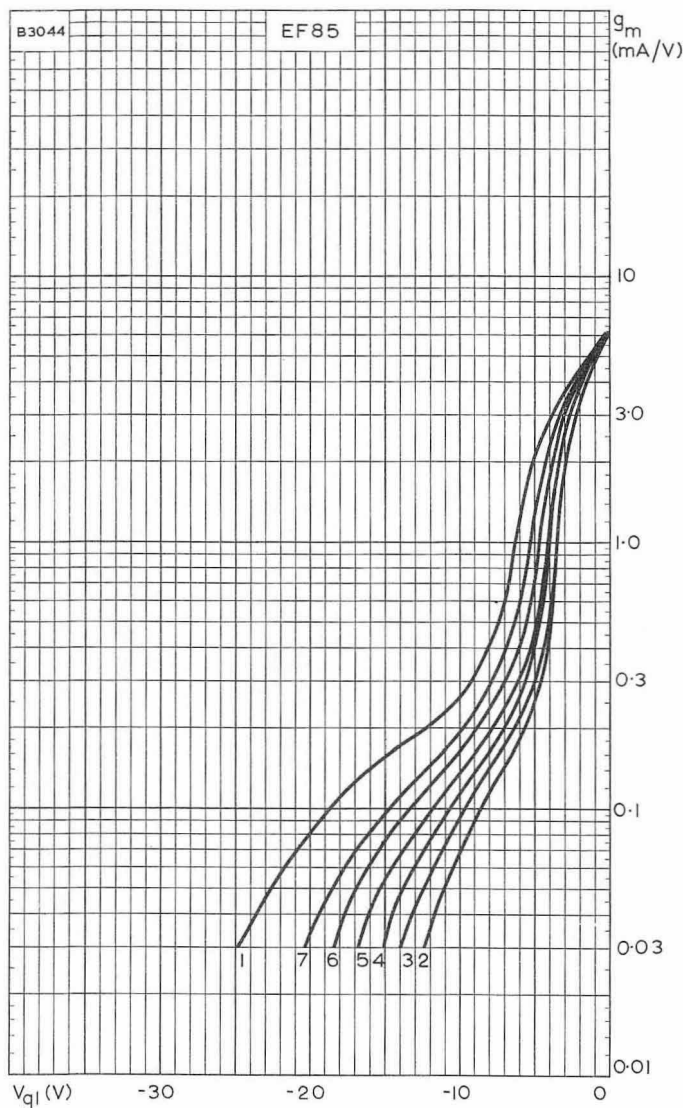
B9A Base

All dimensions in mm

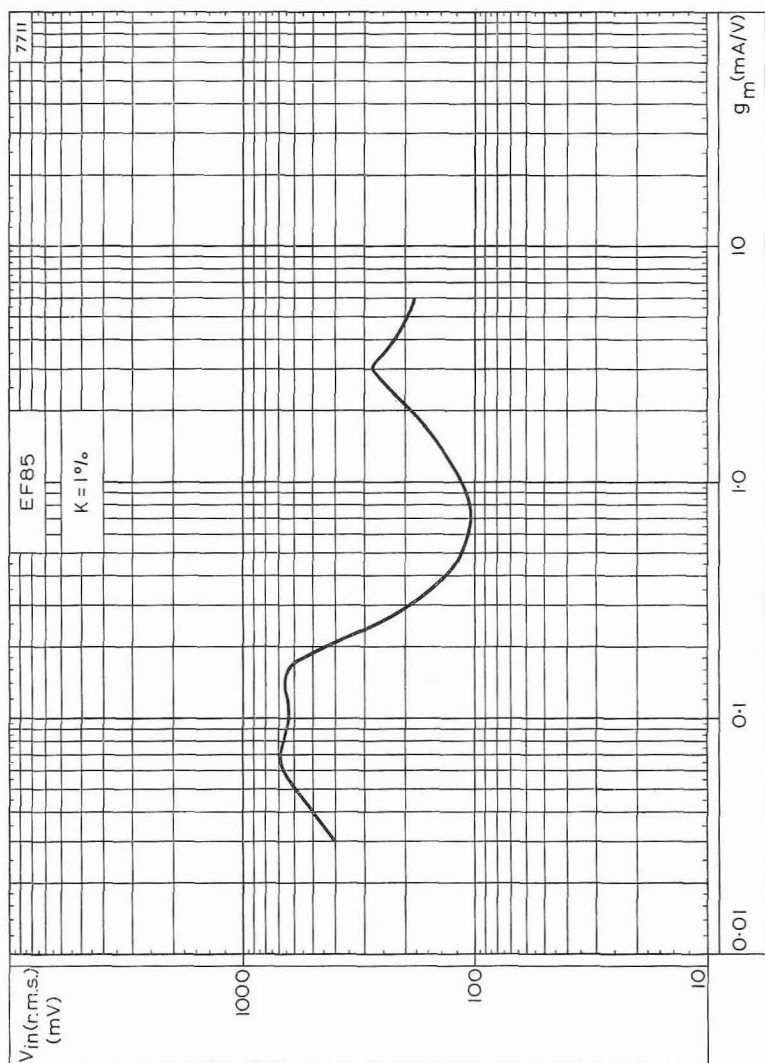




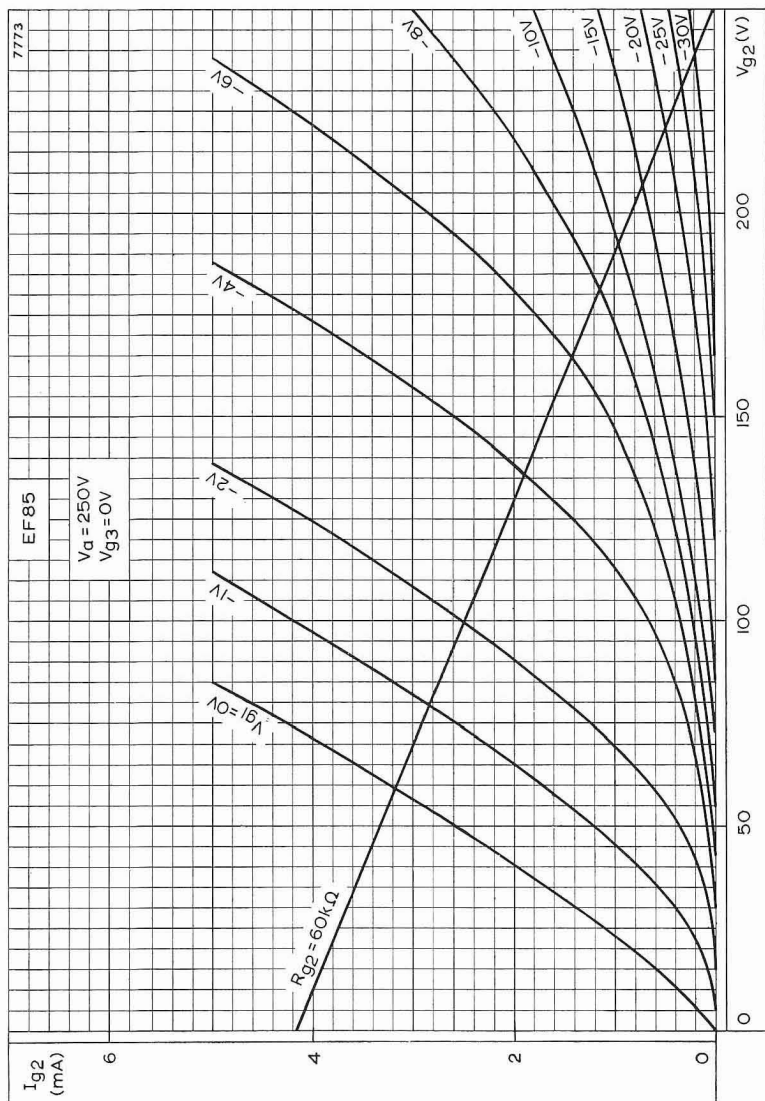
ANODE AND SCREEN-GRID CURRENTS, MUTUAL CONDUCTANCE
 ANODE IMPEDANCE, AND EQUIVALENT NOISE RESISTANCE PLOTTED
 AGAINST CONTROL-GRID VOLTAGE



MUTUAL CONDUCTANCE PLOTTED AGAINST CONTROL-GRID VOLTAGE
UNDER CONDITIONS 1 to 7 (See page D1)



CROSS MODULATION CURVE



SCREEN-GRID CURRENT PLOTTED AGAINST SCREEN-GRID VOLTAGE
WITH CONTROL-GRID VOLTAGE AS PARAMETER