

R.F. PENTODE

EF91

High slope pentode primarily intended for use as r.f. and i.f. amplifier or mixer valve.

HEATER

Suitable for series or parallel operation

V_h	6.3	V
I_h	300	mA

CAPACITANCES

	Unshielded	Shielded	←
C_{in}	7.1	7.1	pF
C_{out}	2.1	3.1	pF
C_{a-g1}	<20	<10	mpF

CHARACTERISTICS

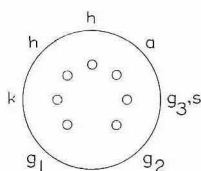
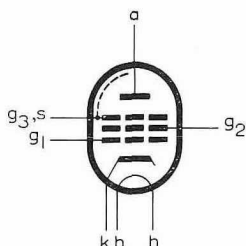
V_a	250	V
V_{g3}	0	V
V_{g2}	250	V
V_{g1}	-2.0	V
I_a	10	mA
I_{g2}	2.6	mA ←
g_m	7.6	mA/V
r_a	> 500	kΩ ←
μ_{g1-g2}	70	
R_{eq}	1.2	kΩ
r_{g1} ($f = 50\text{Mc/s}$)	6.5	kΩ ←
V_{g3} for cut-off ($I_a < 50\mu\text{A}$)	-120	V ←

OPERATING CONDITIONS AS MIXER

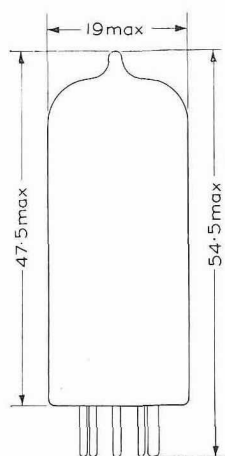
V_b	250	V
V_{g3}	0	V
R_k	470	Ω
R_{g1}	1.0	MΩ
I_a	6.0	mA ←
I_{g2}	1.5	mA ←
I_{g1}	2.0	μA ←
V_{osc} (r.m.s.)	4.0	V ←
g_c	2.5	mA/V
$g_m(\text{eff.})$	3.2	mA/V ←
r_a	880	kΩ ←

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
$-V_{g1}$ max.	50	V
I_k max.	15	mA
R_{g1-k} max.	250	k Ω ←
V_{h-k} max.	150	V
T_{bulb} max.	210	°C

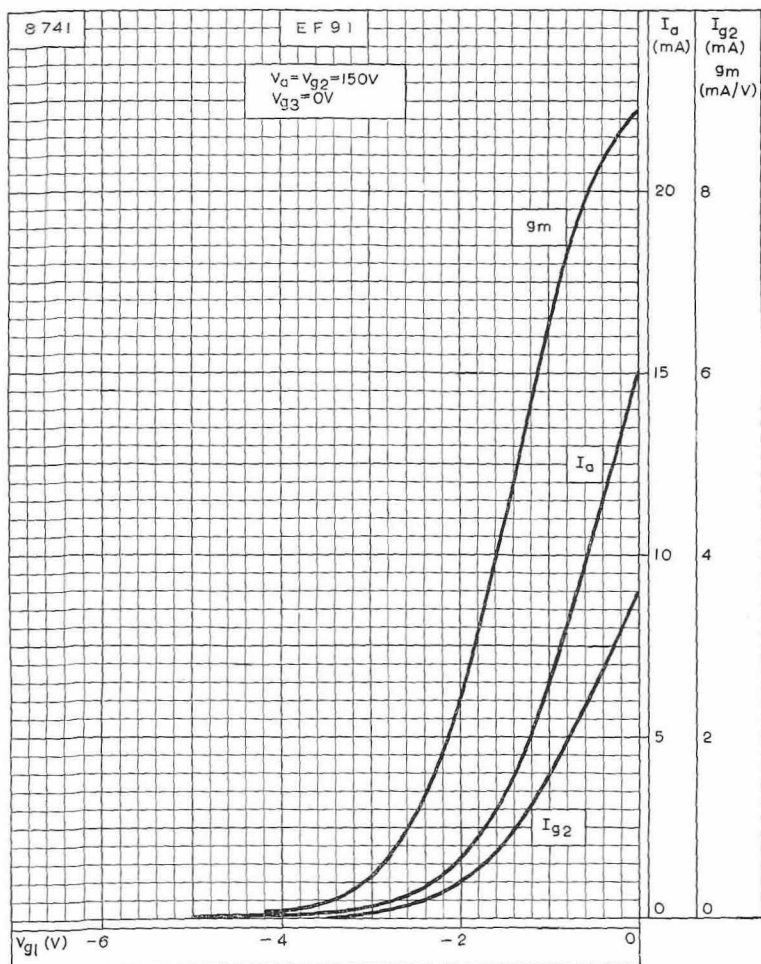


B7G Base

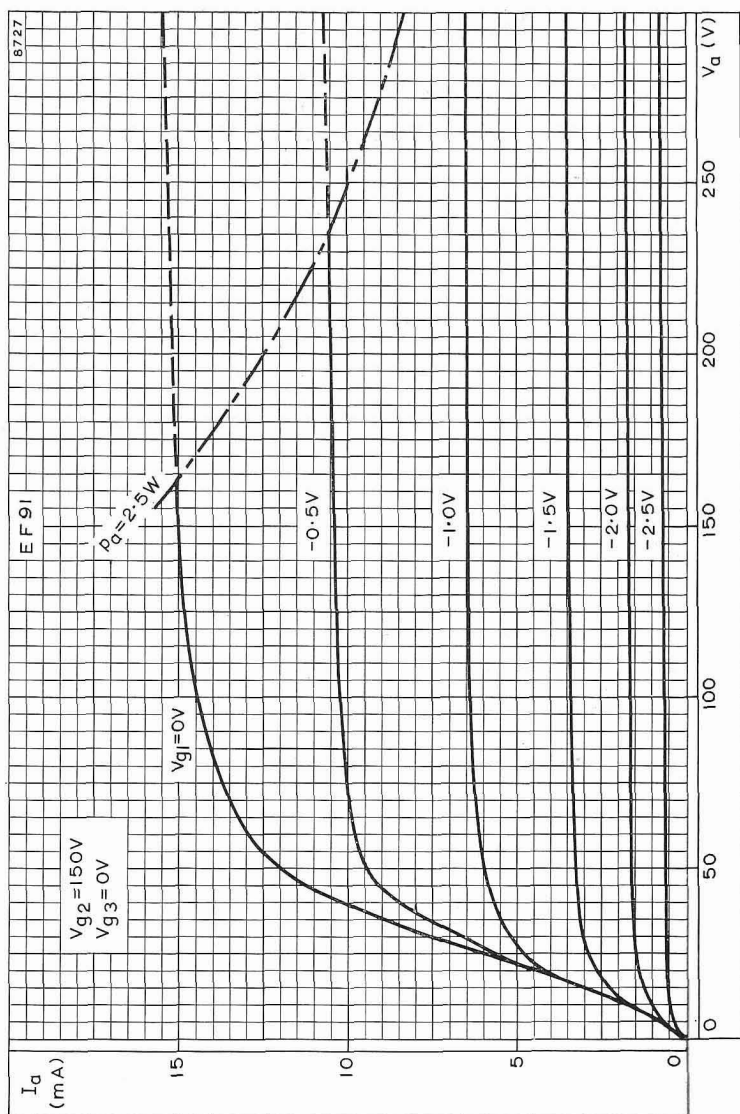


All dimensions in mm

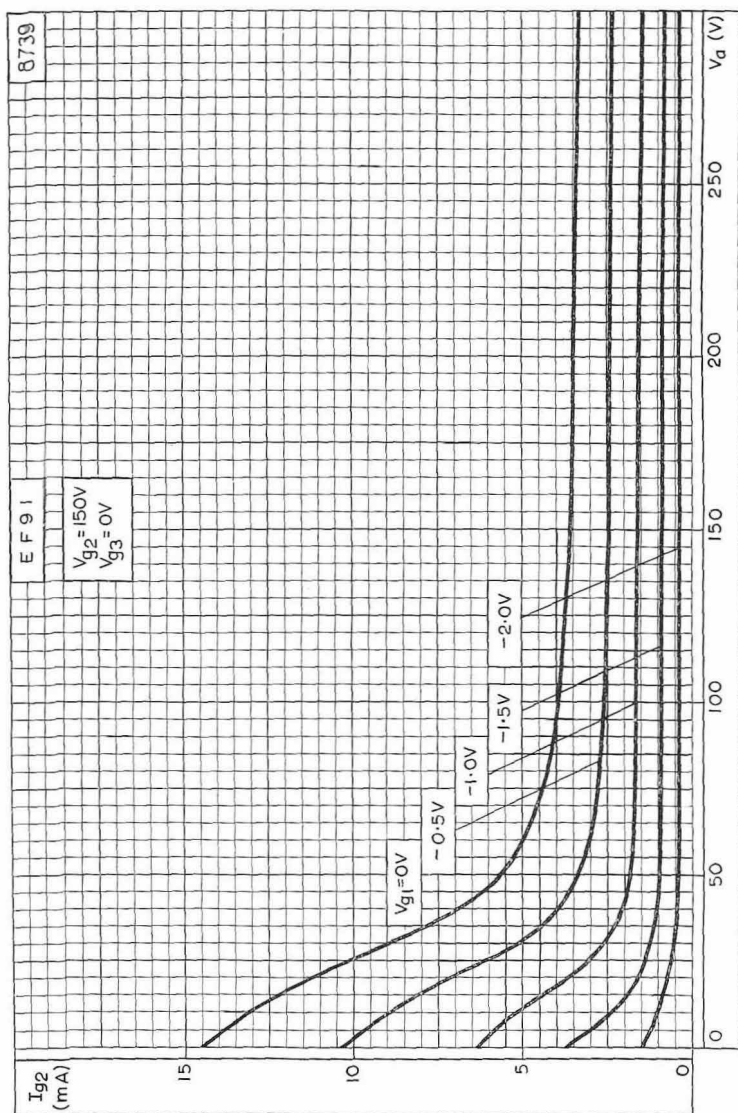
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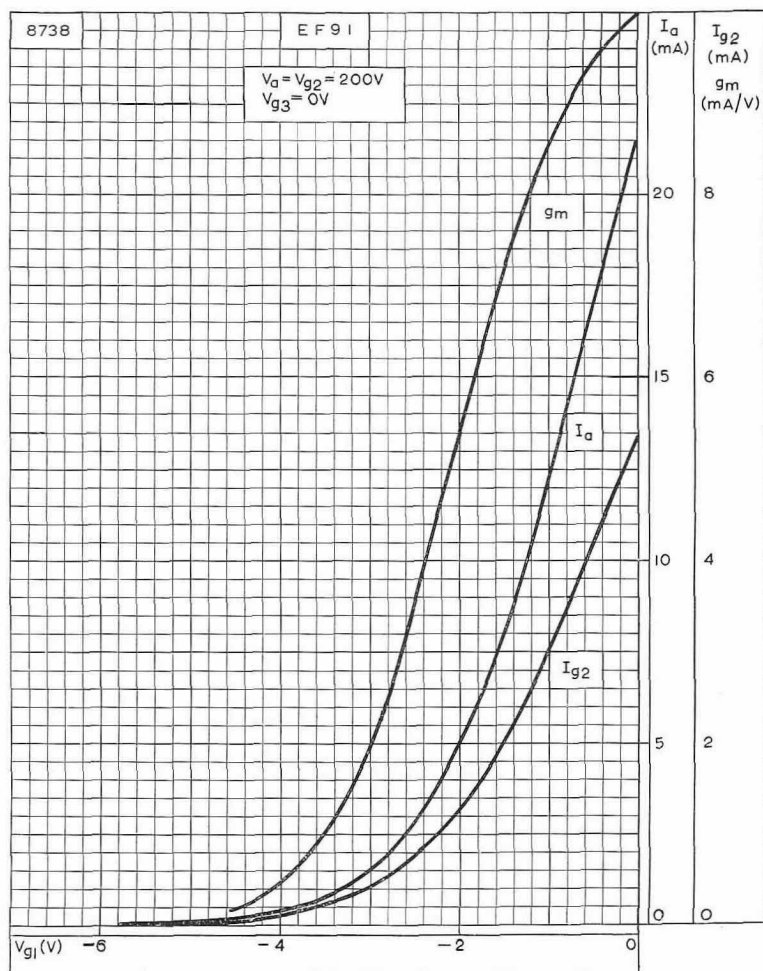
ANODE CURRENT, SCREEN-GRID CURRENT AND MUTUAL CONDUCTANCE PLOTTED AGAINST CONTROL-GRID VOLTAGE. $V_a = V_{g2} = 150V$



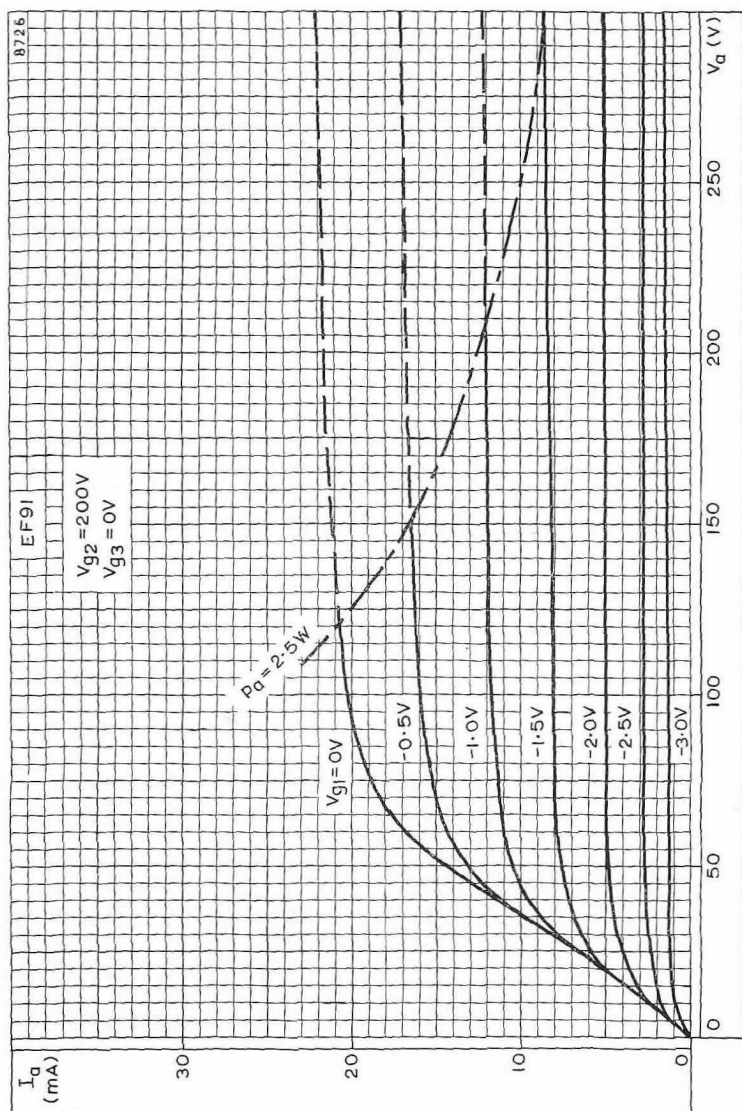
ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL GRID VOLTAGE AS PARAMETER. $V_{g2} = 150V$



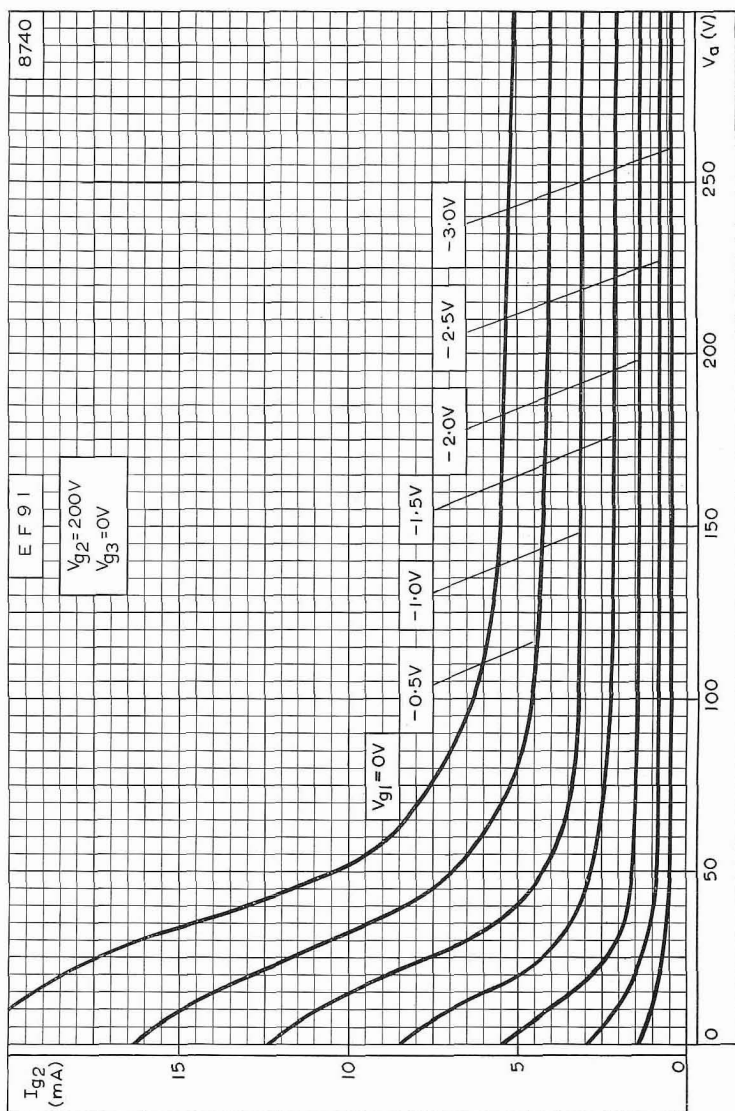
SCREEN-GRID CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 150V$



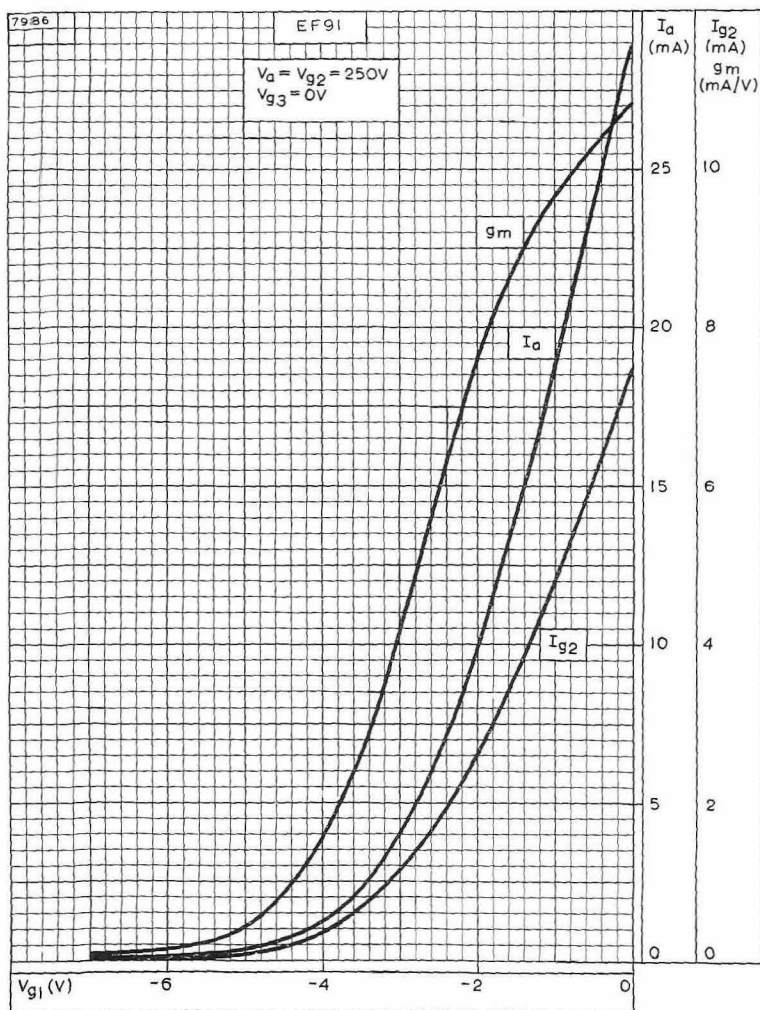
ANODE CURRENT, SCREEN-GRID CURRENT AND MUTUAL CONDUCTANCE PLOTTED AGAINST CONTROL-GRID VOLTAGE. $V_a = V_{g2} = 200V$



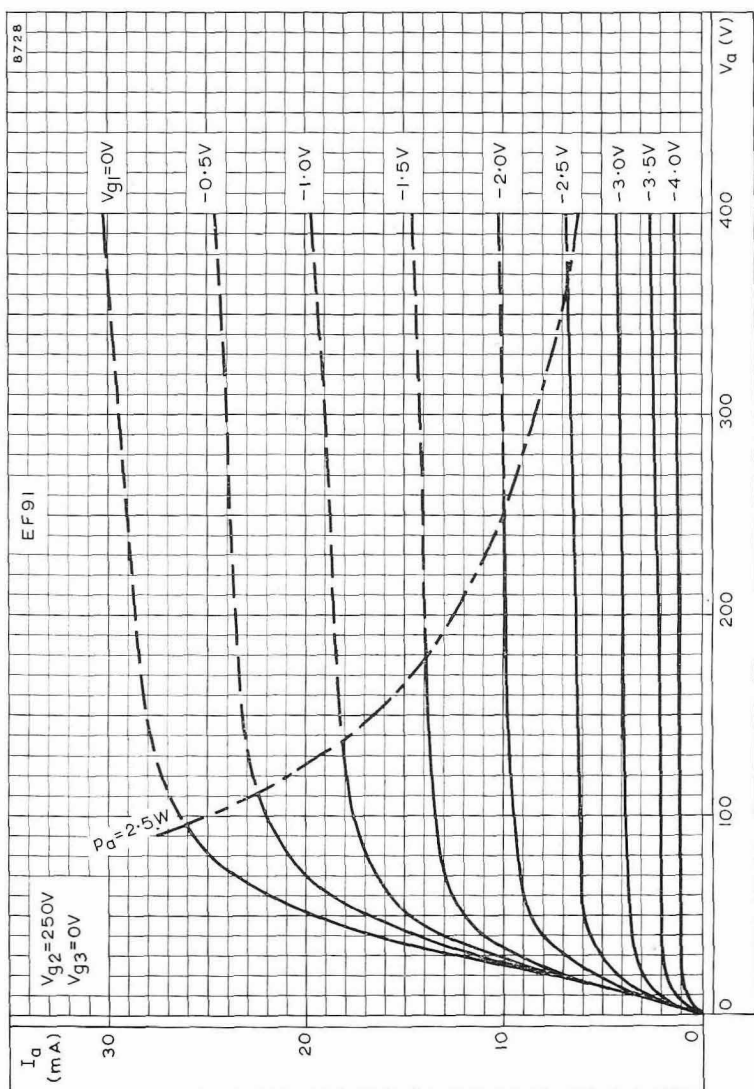
ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 200V$



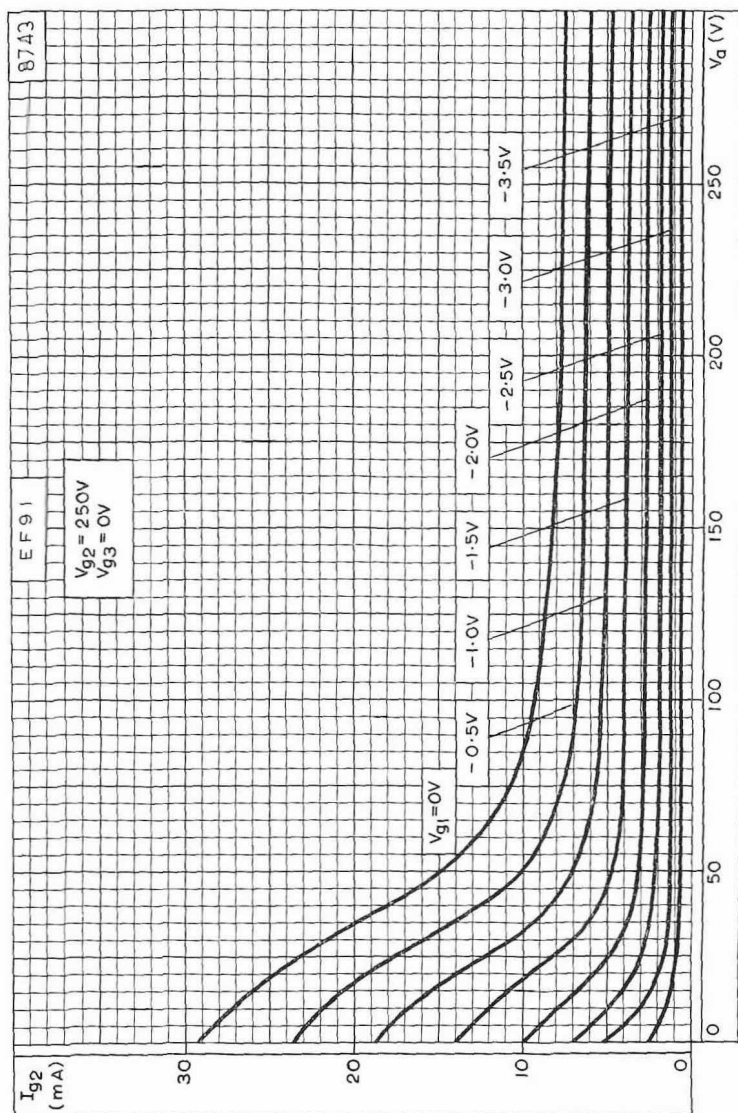
SCREEN-GRID CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 200V$



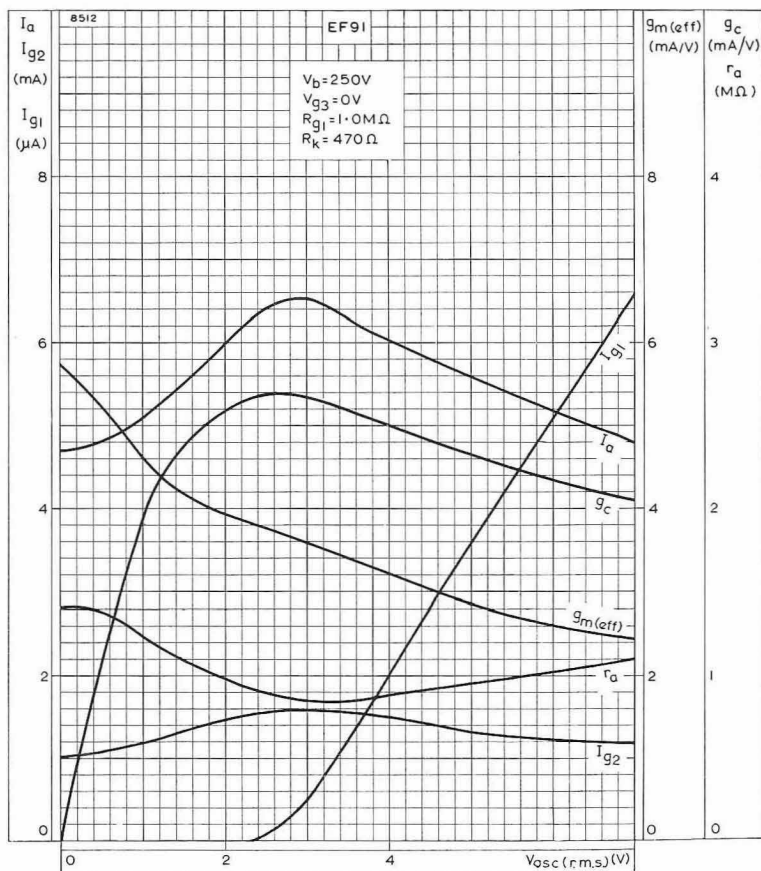
ANODE CURRENT, SCREEN-GRID CURRENT AND MUTUAL CONDUCTANCE PLOTTED AGAINST CONTROL-GRID VOLTAGE. $V_a = V_{g2} = 250V$



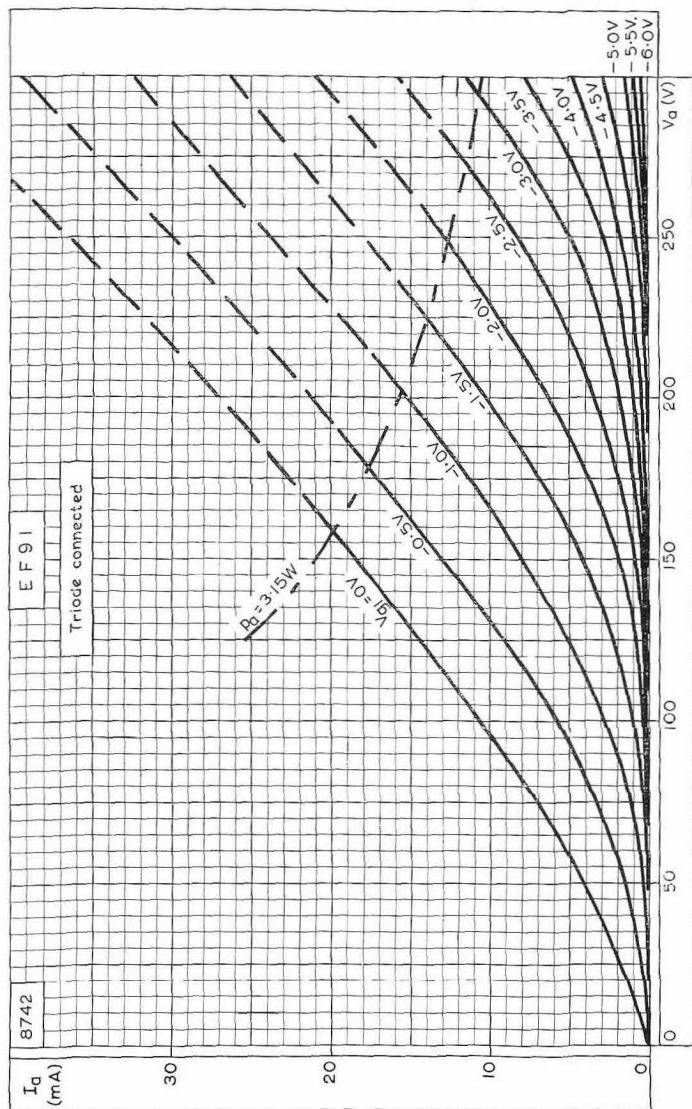
ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 250V$



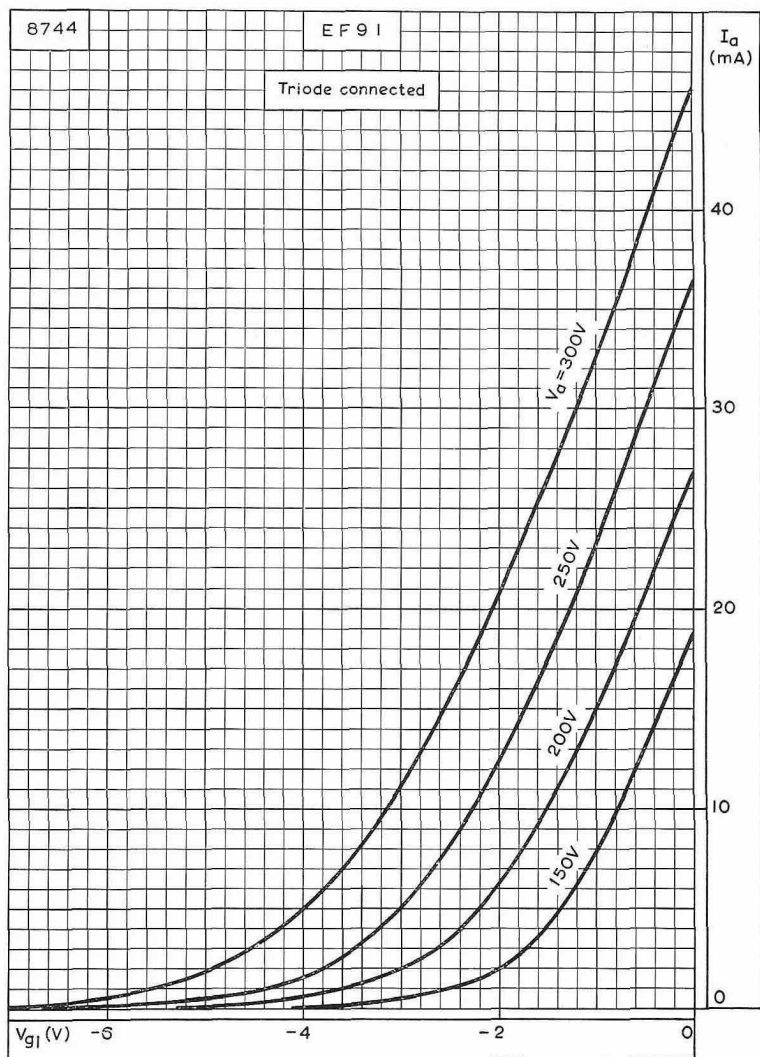
SCREEN-GRID CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 250V$



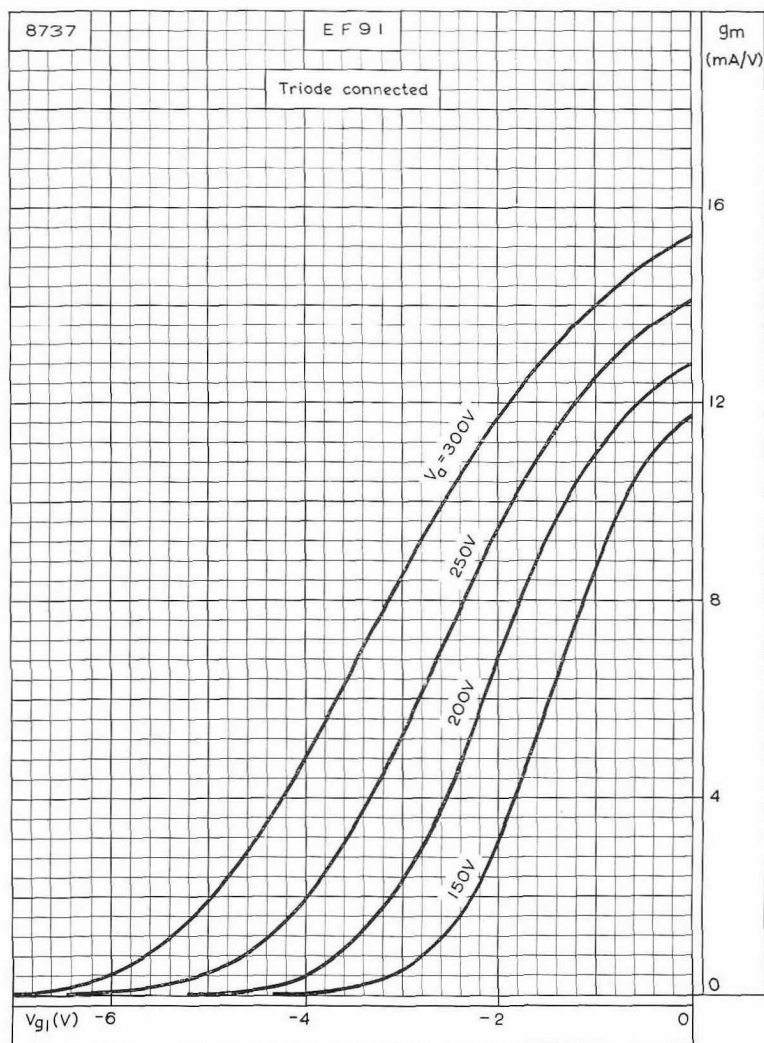
PERFORMANCE CURVES WHEN USED AS FREQUENCY CHANGER



ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER, WHEN TRIODE CONNECTED



ANODE CURRENT PLOTTED AGAINST CONTROL-GRID VOLTAGE WITH ANODE VOLTAGE AS PARAMETER, WHEN TRIODE CONNECTED



MUTUAL CONDUCTANCE PLOTTED AGAINST CONTROL-GRID VOLTAGE
WITH ANODE VOLTAGE AS PARAMETER, WHEN TRIODE CONNECTED

