

PENTODE

6AS6

Dual control pentode for switching or gating control or for use as a frequency changer.

HEATER

V_h	6.3	V
I_h	175	mA

MOUNTING POSITION

Any

CAPACITANCES

	Shielded	Unshielded
C_{a-g1}	<20	<25 mpF
C_{a-g3}	700	700 mpF
C_{in}	4.0	3.9 pF
C_{g3-all}	3.4	3.3 pF
C_{out}	3.0	2.2 pF
C_{g1-g3}	<150	<150 mpF

CHARACTERISTICS

V_a	120	120	V
V_{g2}	120	120	V
V_{g3}	-3.0	0	V
I_a	3.5	5.1	mA
I_{g2}	4.8	3.5	mA
V_{g1}	-2.0	-2.0	V
$g_{m(g1-a)}$	2.0	3.2	mA/V
$g_{m(g3-a)}$	660	450	$\mu A/V$
r_a	—	150	k Ω
$V_{g1}(I_a = 100\mu A)$	—	<-7.5	V
$V_{g3}(I_a = 20\mu A)$	-10	<-15	V

OPERATING CONDITIONS

Frequency changer with oscillator voltage on g_3

V_a	120	V
V_{g2}	120	V
V_{g1}	-2.0	V
I_a	2.1	mA
I_{g2}	5.8	mA
$V_{osc(r.m.s.)}$	6.0	V
I_{g3}	70	μA
R_{g3}	100	k Ω
g_c	1.0	mA/V
r_a	130	k Ω
R_{eq}	12	k Ω

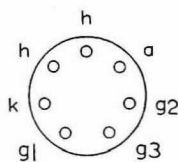
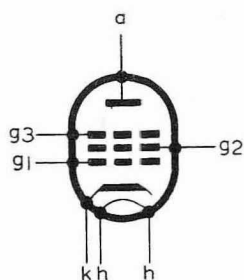
DESIGN CENTRE RATINGS

$V_{a(b)} \text{ max.}$	300	V
$V_a \text{ max.}$	180	V
$p_a \text{ max.}$	1.7	W
$V_{g2(b)} \text{ max.}$	300	V
$V_{g2} \text{ max.}$	140	V
$p_{g2} \text{ max.}$	750	mW
$V_{g3} \text{ max.}$	27	V
$R_{g1-k} \text{ max.}$	4.0	M Ω ←
$I_k \text{ max.}$	18	mA
$V_{h-k} \text{ max.}$	90	V

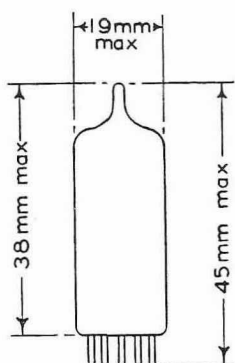
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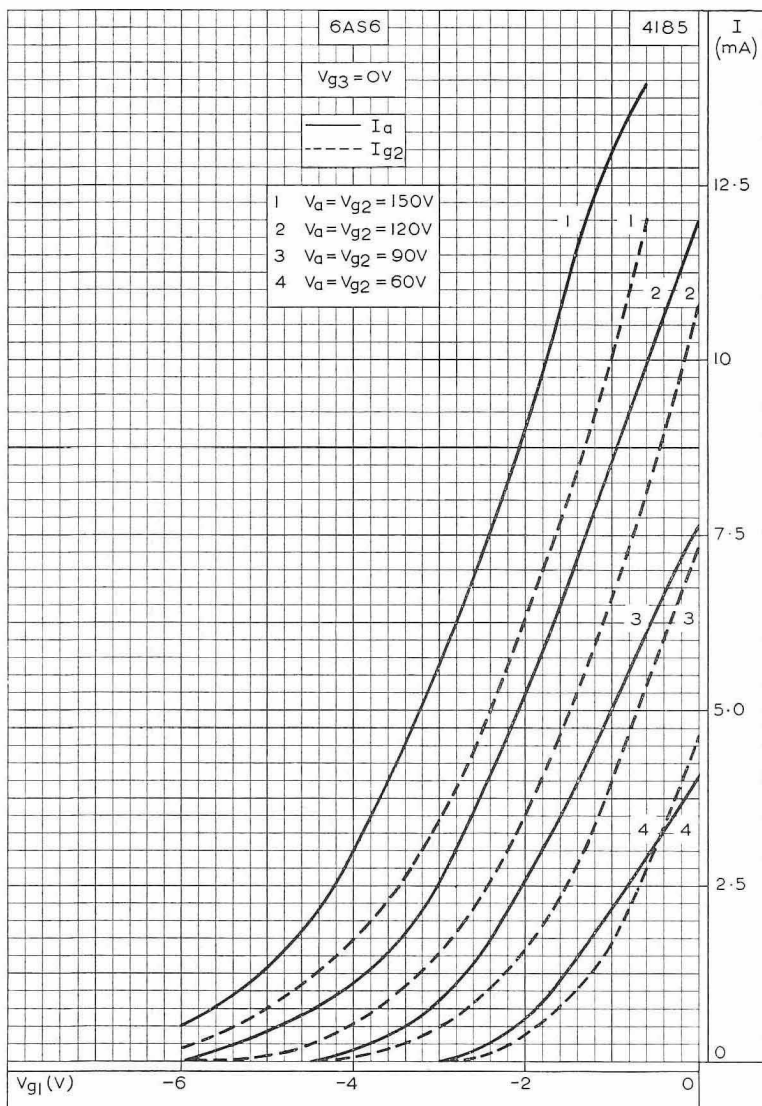
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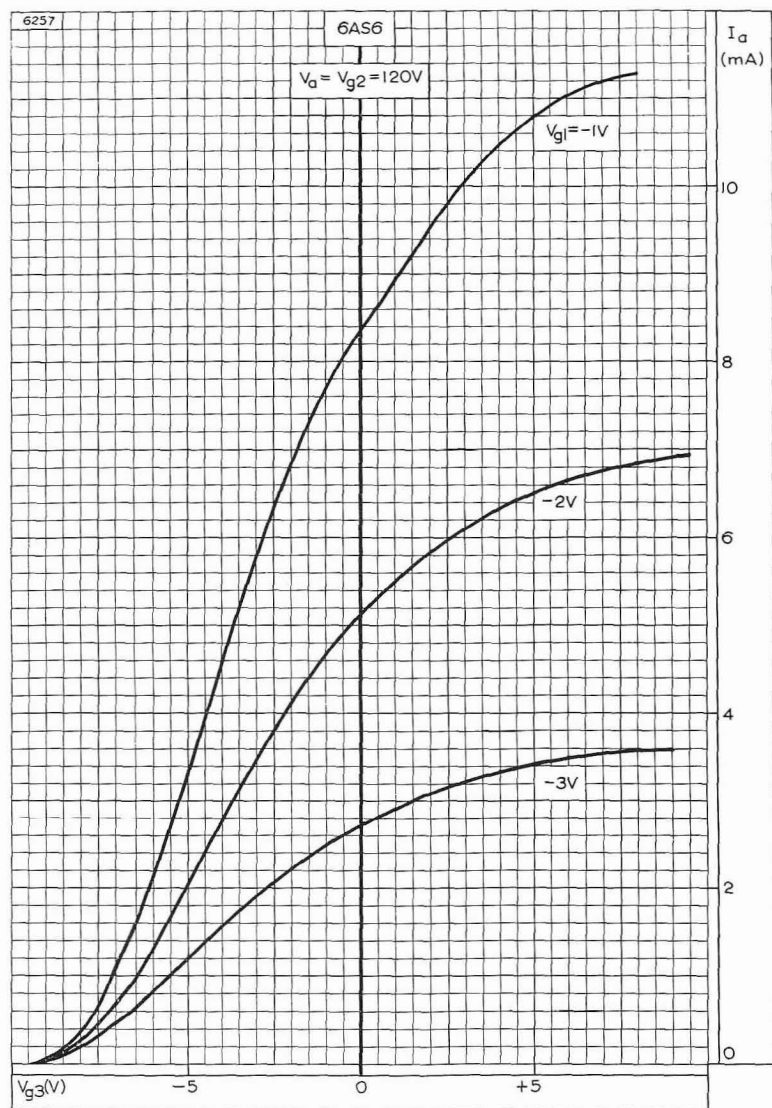


B7G Base

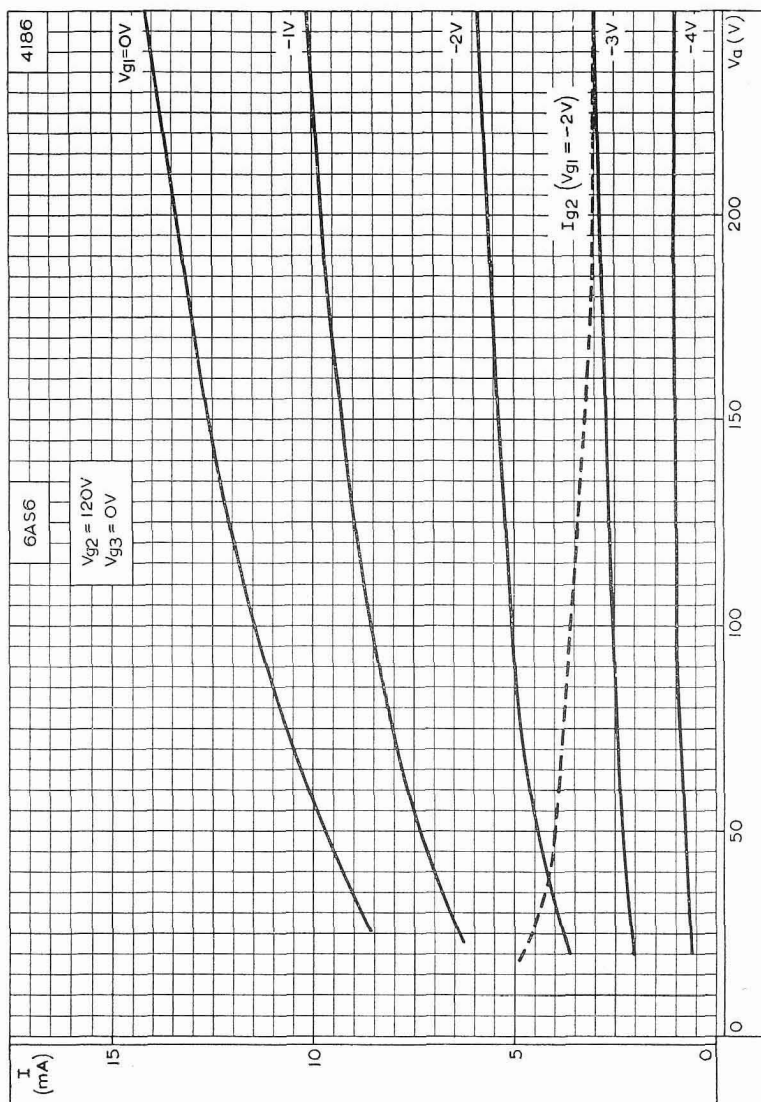




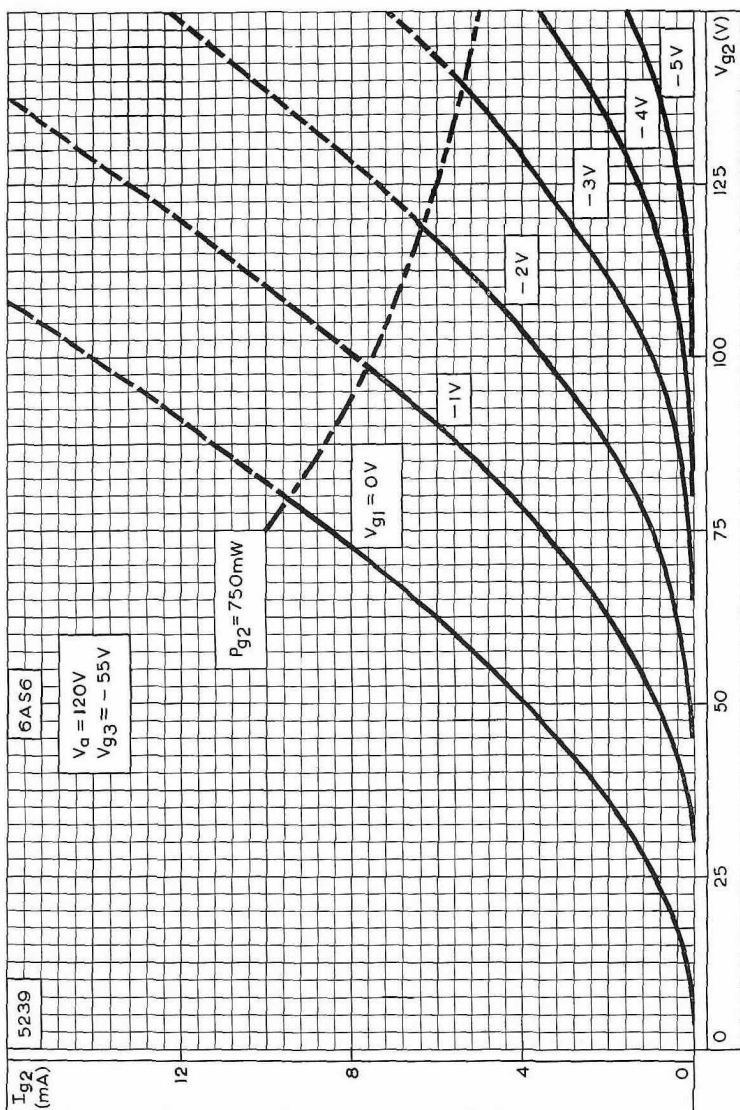
ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST CONTROL-GRID VOLTAGE WITH ANODE AND SCREEN-GRID VOLTAGES AS PARAMETERS



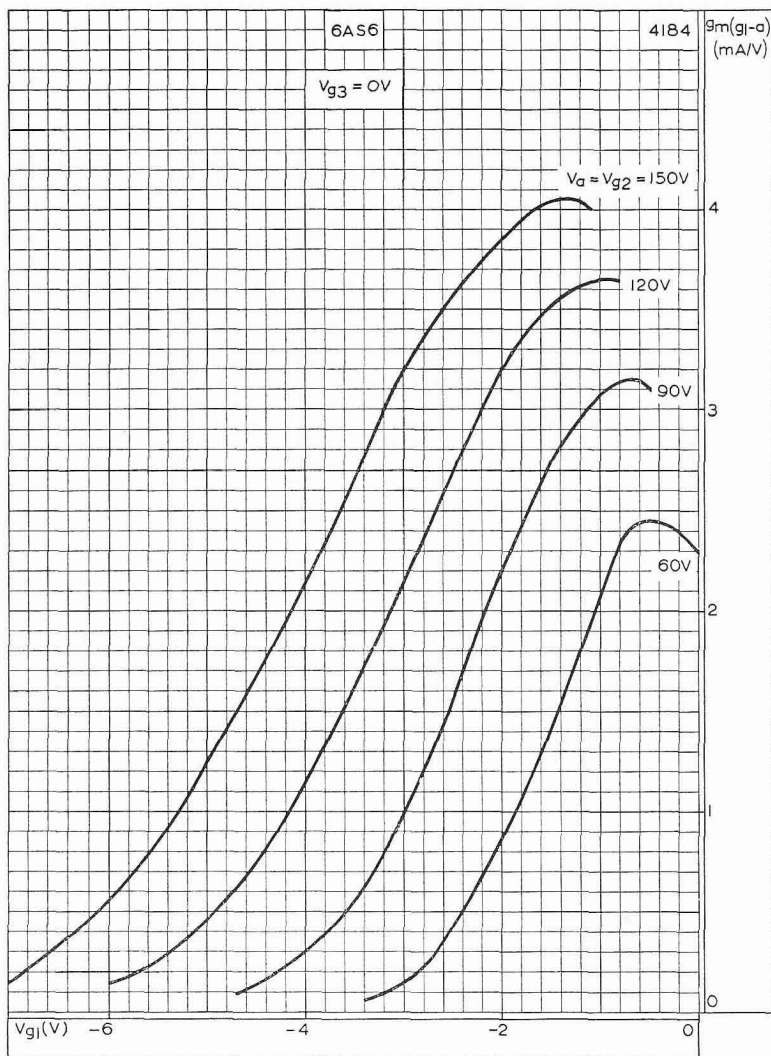
ANODE CURRENT PLOTTED AGAINST SUPPRESSOR-GRID VOLTAGE
WITH CONTROL-GRID VOLTAGE AS PARAMETER



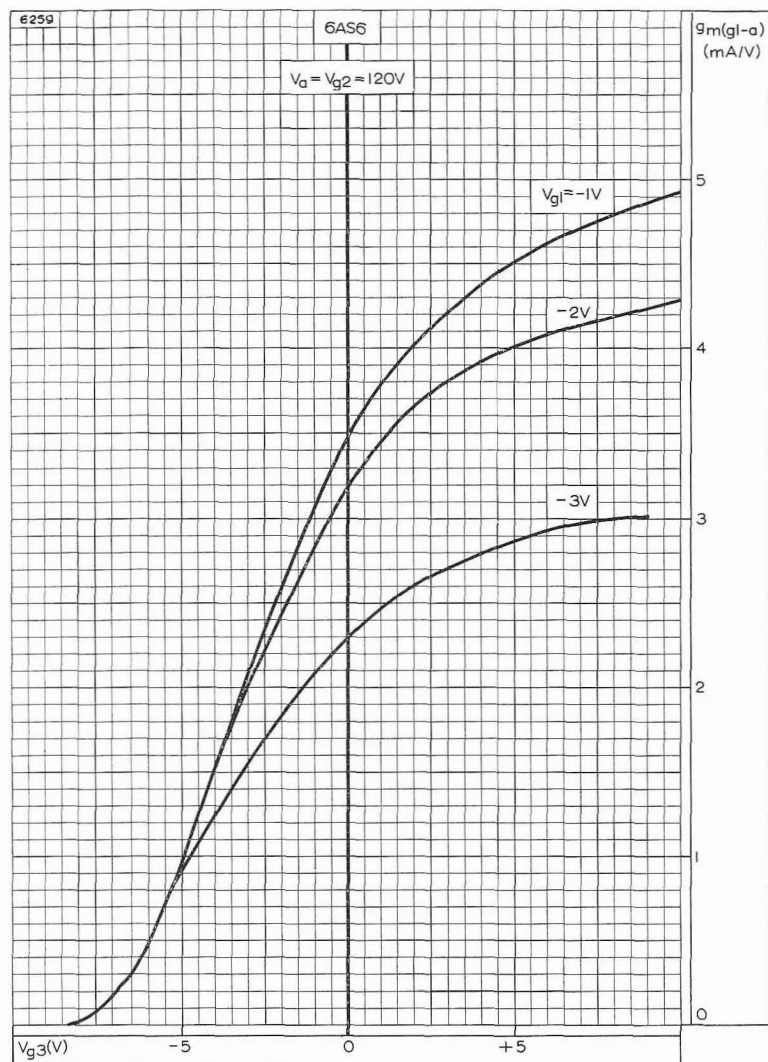
ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER



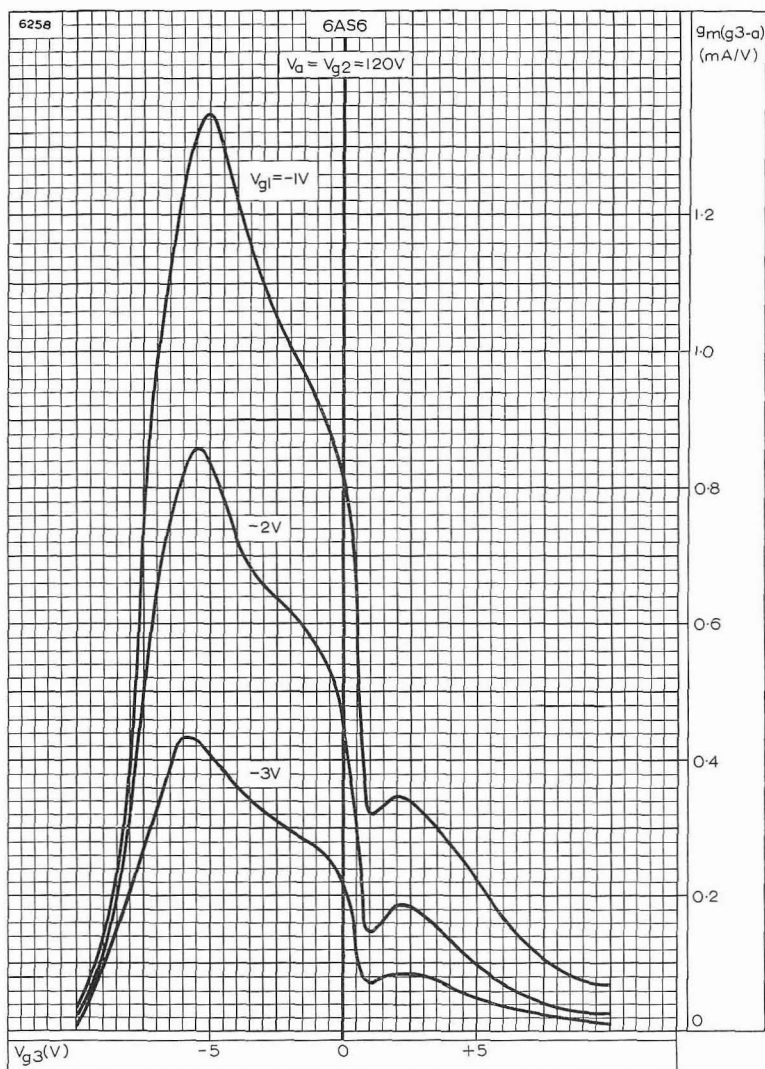
SCREEN-GRID CURRENT PLOTTED AGAINST SCREEN-GRID VOLTAGE
WITH CONTROL-GRID VOLTAGE AS PARAMETER



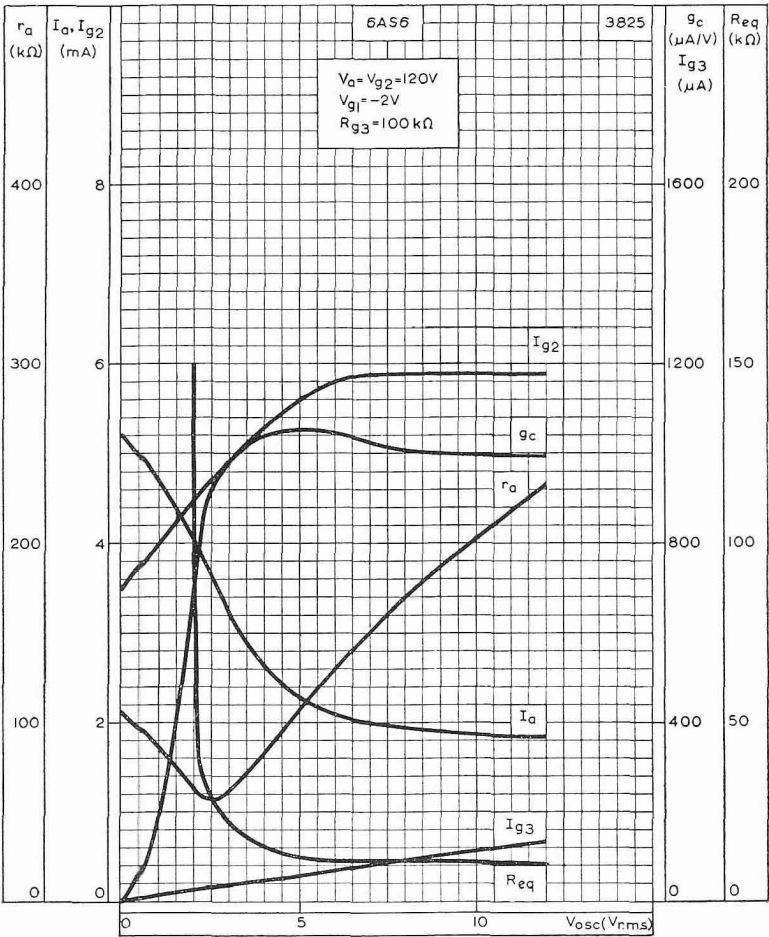
MUTUAL CONDUCTANCE (g_{1-a}) PLOTTED AGAINST CONTROL-GRID VOLTAGE WITH ANODE AND SCREEN-GRID VOLTAGES AS PARAMETERS



MUTUAL CONDUCTANCE (g_{1-a}) PLOTTED AGAINST SUPPRESSOR-GRID VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER



MUTUAL CONDUCTANCE (g_{3-a}) PLOTTED AGAINST SUPPRESSOR-GRID VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER



PERFORMANCE CURVES FOR USE AS A FREQUENCY CHANGER

