

SUBMINIATURE OUTPUT PENTODE

DL620

Subminiature output pentode suitable for battery operation with an h.t. supply of 90V.

FILAMENT

Suitable for d.c. operation only.

V_f	1.25	V
I_f	50	mA

MOUNTING POSITION

Any

Note—Direct soldered connections to the leads of this valve must be at least 5mm from the seal and any bending of the valve leads must be at least 1.5mm from the seal.

CAPACITANCES (measured without external shield)

C_{a-g1}	< 0.2	pF
C_{in}	2.8	pF
C_{out}	3.5	pF

CHARACTERISTICS

V_a	67.5	V
V_{g2}	67.5	V
I_a	3.1	mA
I_{g2}	950	μA
V_{g1}	-6.5	V
g_m	650	$\mu A/V$
r_a	110	k Ω
μ_{g1-g2}	5.0	

OPERATING CONDITIONS AS SINGLE VALVE CLASS 'A' AMPLIFIER

V_a	45	67.5	90	V
V_{g2}	45	67.5	67.5	V
$I_{a(o)}$	1.8	3.25	3.25	mA
$I_{g2(o)}$	0.6	1.0	0.9	mA
$I_{g2} \text{ (max.sig.)}$	1.1	1.75	1.5	mA
V_{g1}	-3.8	-6.2	-6.7	V
$V_{in(r.m.s.)}$	3.4	5.0	4.8	V
R_a	20	15	25	k Ω
P_{out}	30	85	110	mW
D_{tot}	10	10	10	%

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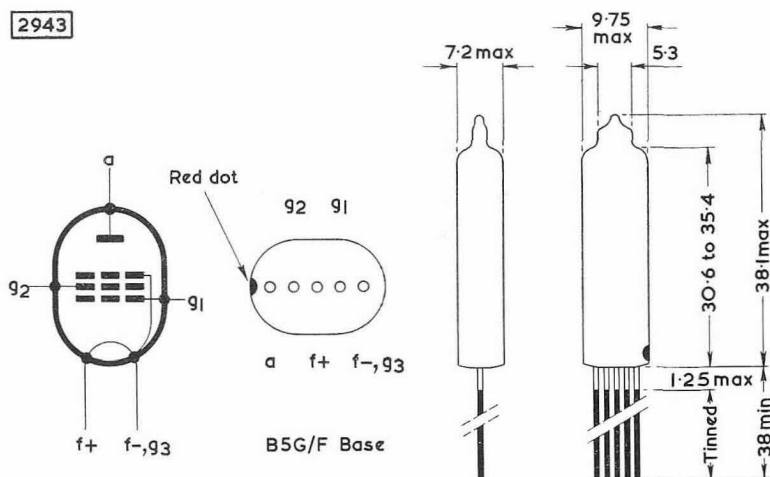
OPERATING CONDITIONS FOR TWO VALVES IN PUSH-PULL CLASS 'AB'

V_{a-e}	67.5	V
V_{g2-e}	67.5	V
$I_{a(0)}$	3.3	mA
I_a (max. sig.)	3.6	mA
$I_{g2(0)}$	1.0	mA
I_{g2} (max. sig.)	2.25	mA
R_k	1.8	k Ω
R_{a-a}	30	k Ω
$V_{in(g1-g1)r.m.s.}$	16	V
P_{out}	100	mW
D_{tot}	3.0	%

LIMITING VALUES

V_a max.	90	V
V_{g2} max.	90	V
I_k max.	5.0	mA

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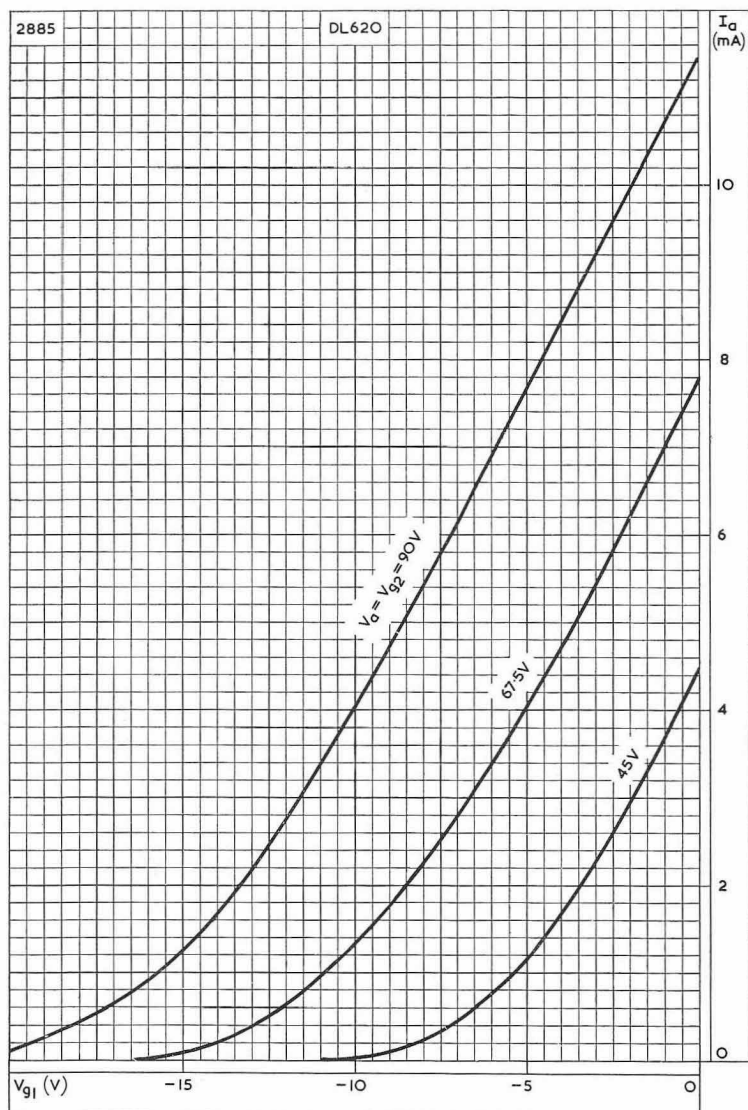


All dimensions in mm

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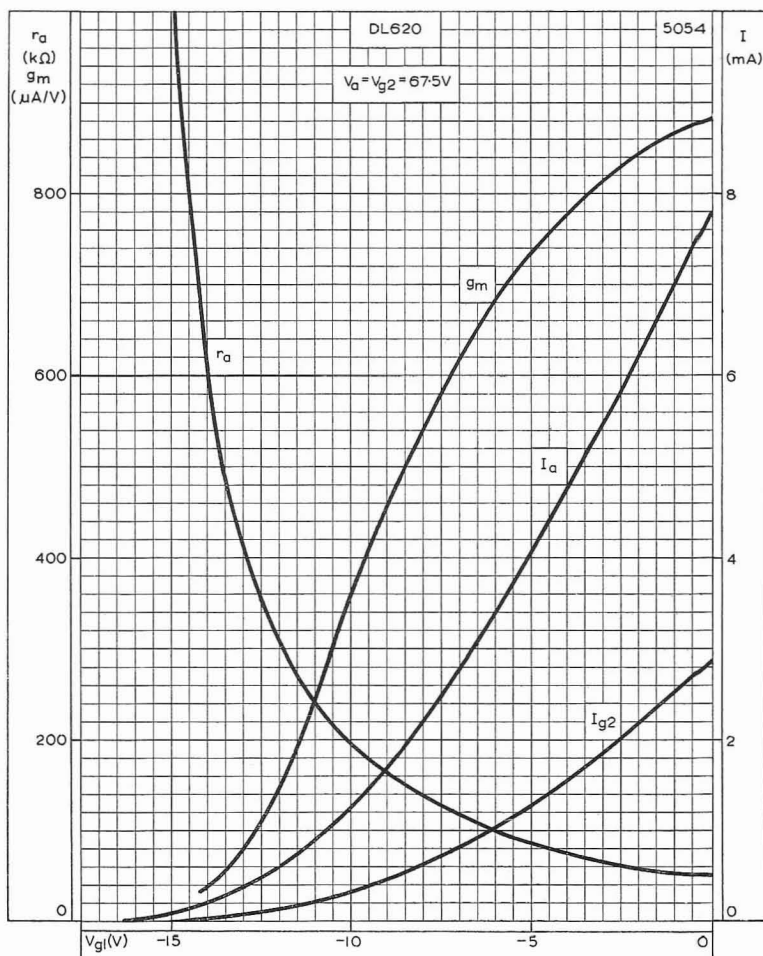


ANODE CURRENT PLOTTED AGAINST CONTROL-GRID VOLTAGE FOR VARIOUS VALUES OF ANODE AND SCREEN-GRID VOLTAGE

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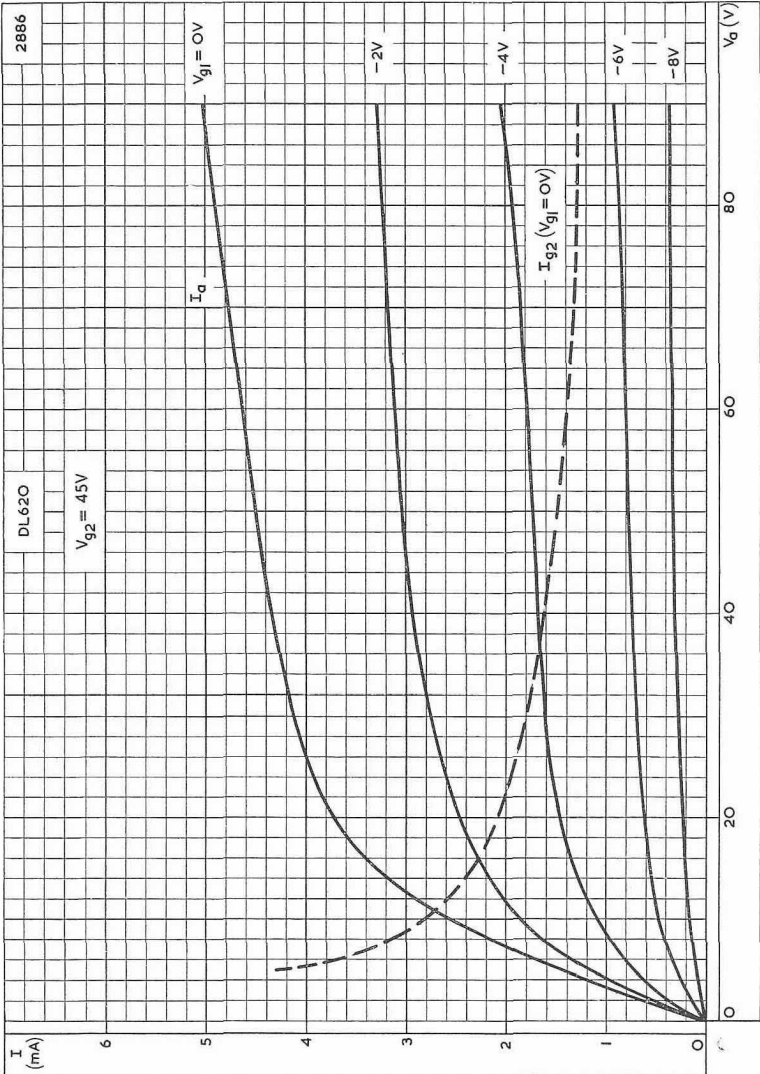


ANODE AND SCREEN-GRID CURRENTS, MUTUAL CONDUCTANCE AND ANODE IMPEDANCE PLOTTED AGAINST CONTROL-GRID VOLTAGE
 $V_a = V_{g2} = 67.5V$

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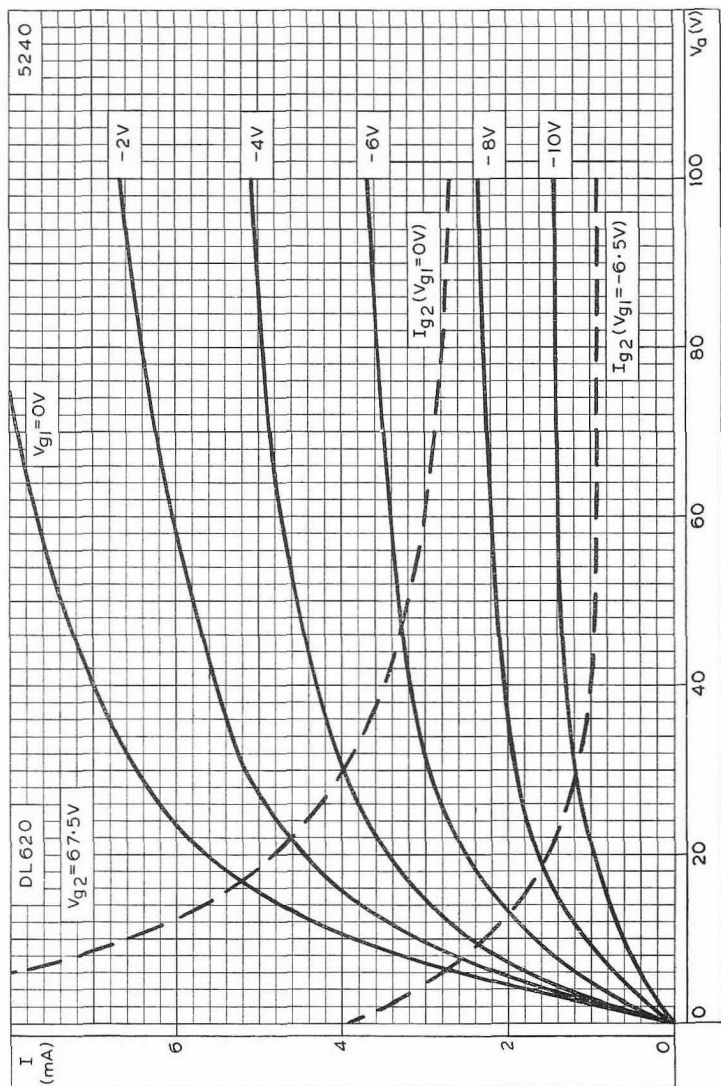
ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 45V$



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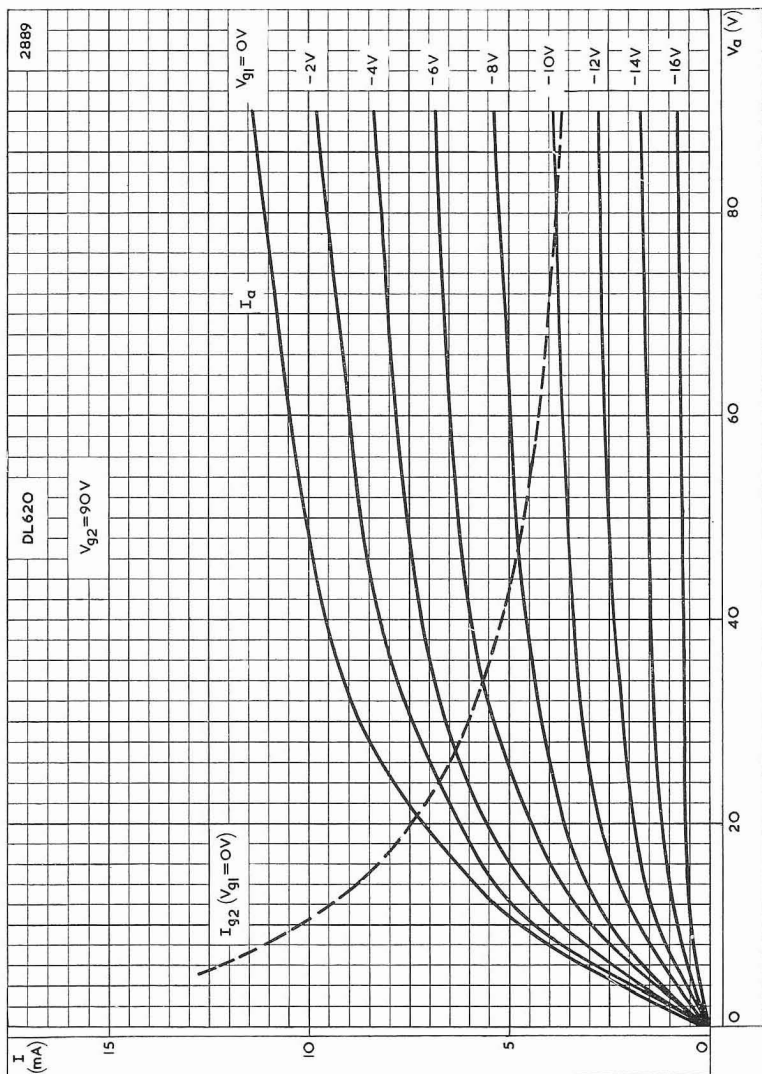


ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g3} = 67.5V$

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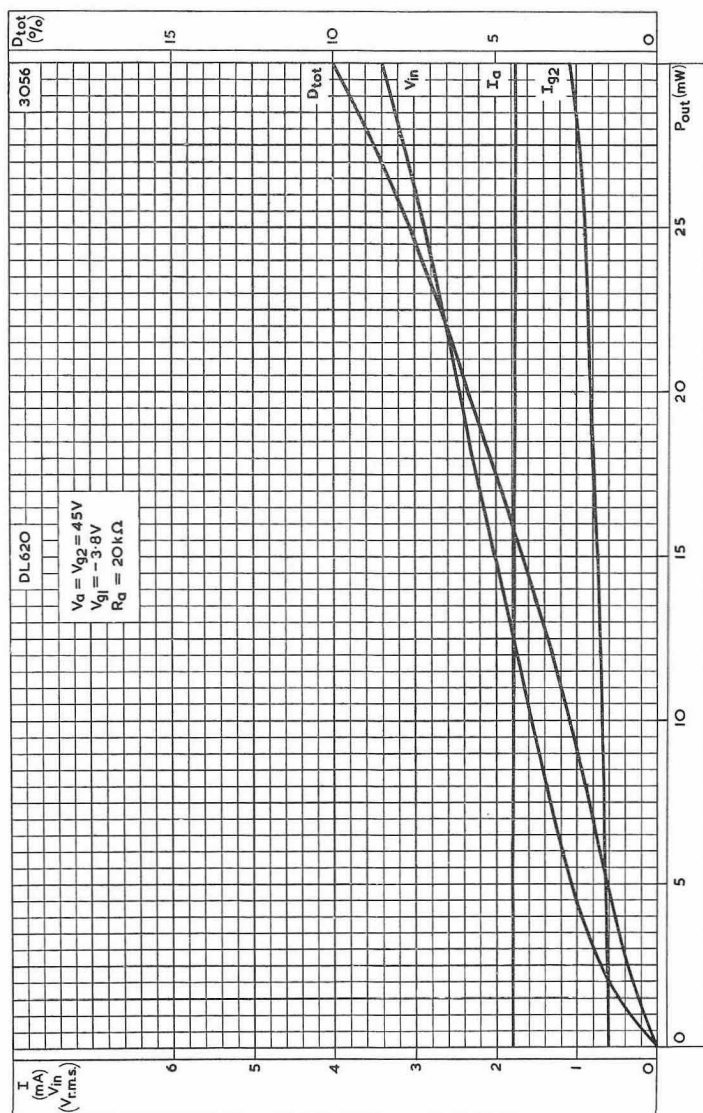


ANODE AND SCREEN-GRID CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER. $V_{g2} = 90V$

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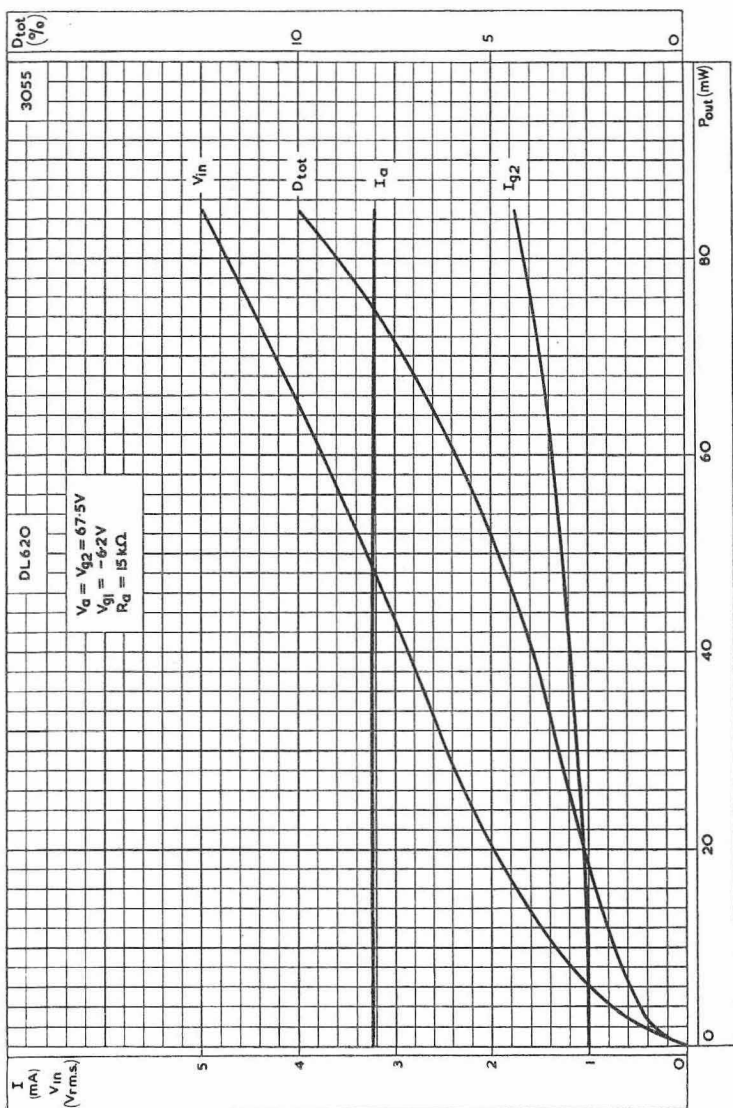
PERFORMANCE OF DL620 WHEN USED AS SINGLE VALVE CLASS 'A' AMPLIFIER. $V_a = V_{g2} = 45V$



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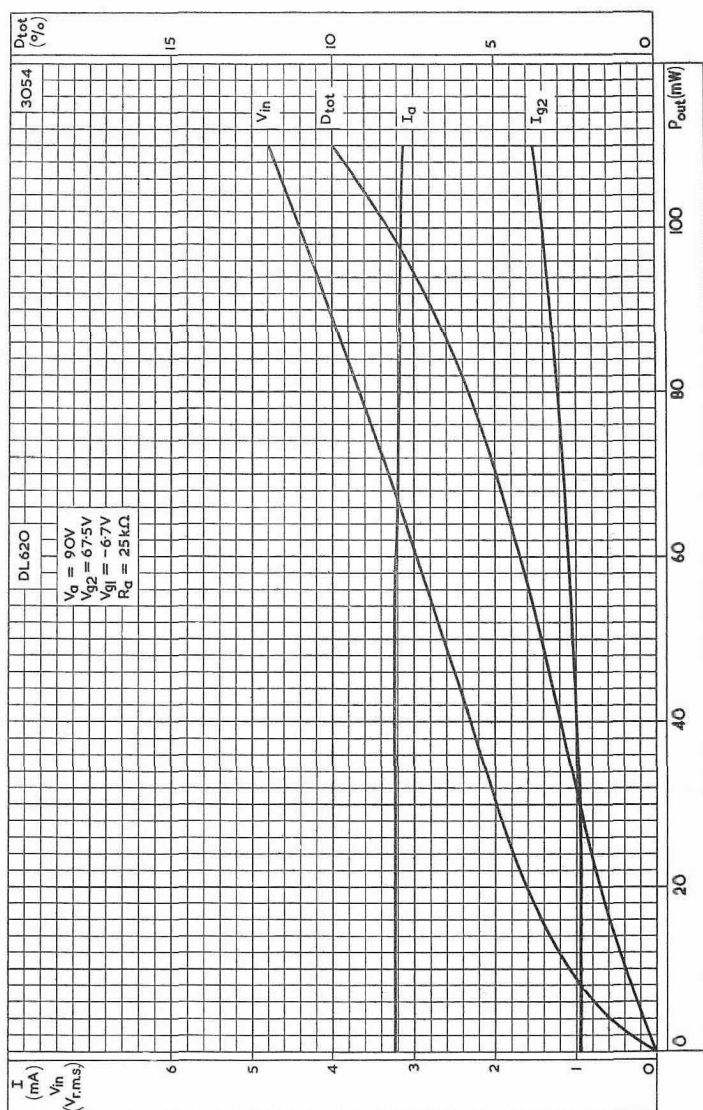


PERFORMANCE OF DL620 WHEN USED AS SINGLE VALVE CLASS 'A' AMPLIFIER. $V_a = V_{g2} = 67.5V$

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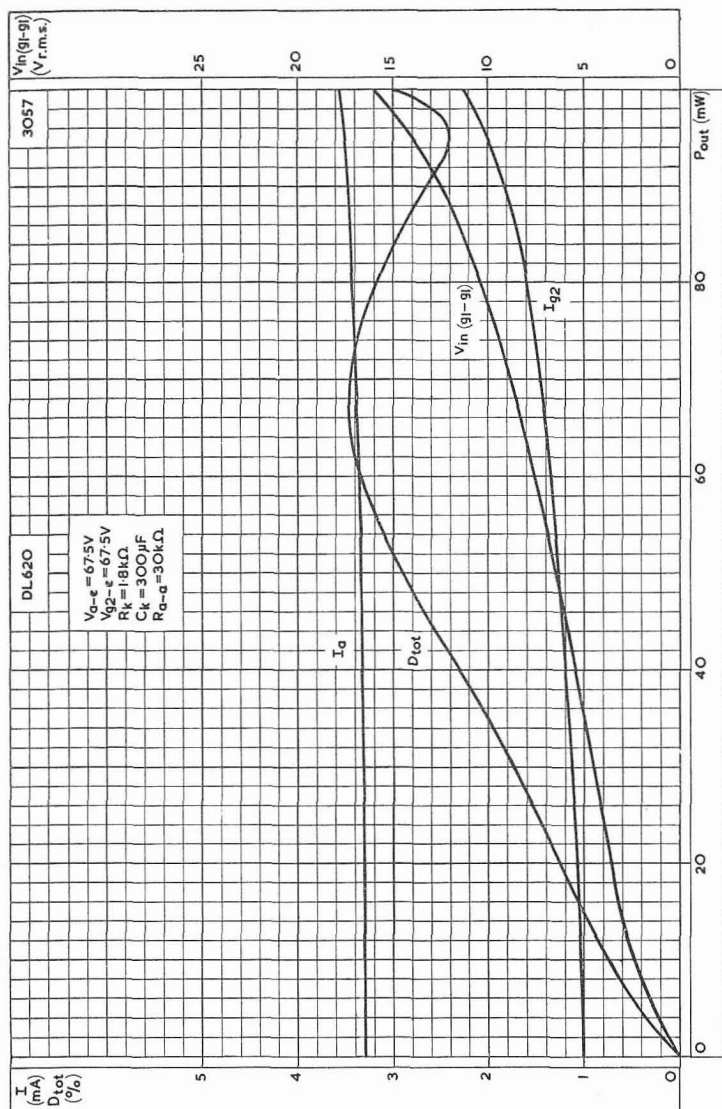


PERFORMANCE OF DL620 WHEN USED AS SINGLE VALVE CLASS 'A' AMPLIFIER. $V_a=90V$, $V_{g2}=67.5V$

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PERFORMANCE OF TWO DL620 IN PUSH-PULL WITH CATHODE BIAS

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