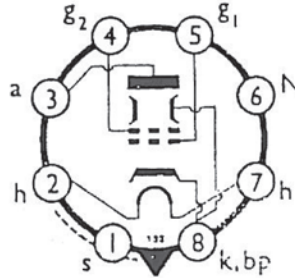


The KT88 has an anode dissipation of 35W and is primarily designed for the output stage of an a.f. amplifier for which two valves will provide up to 100W output. Under intermittent conditions, an output of 150W is obtainable in Class B (see Circuit Supplement). It is also suitable for use as a series valve in a stabilised power supply.

BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside of base.

Base : Metal shell wafer octal.  
Bulb : Tubular  
Max. overall length : 125 mm.  
Max. seated length : 110 mm.  
Max. diameter : 52 mm.

HEATER

$V_h$	6.3	V
$I_h$	1.6	A

MAXIMUM RATINGS

$V_a$	600	V
$V_{g2}$	600	V
* $V_{a,g2}$	600	V
$P_a$	35	W
$P_{g2}$	6	W
* $P_{a+g2}$	40	W
$I_k$	175	mA
$V_{h-k}$	150	V
$R_{g-k}$ (cathode bias)	220†	kΩ
$R_{g-k}$ (fixed bias)	100†	kΩ

\*Triode connection.

†Resistors of 20% tolerance may be used.

CAPACITANCES

$C_{g-a}$	1.2 pF	$C_{in}$	16 pF	$C_{out}$	12 pF
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CHARACTERISTICS

Pentode Connection			Triode Connection		
$V_a$	250	V	$V_{a,g2}$	250	V
$V_{g2}$	250	V	$I_h$	160	mA
$I_a$	140	mA	$g_m$	12	mA/V
$g_m$	11	mA/V	$r_a$	670	Ω
$r_a$	12	kΩ	$\mu$	8	--
$\mu_{g1-g2}$	8				

# KT88

## TYPICAL OPERATION

### Push-Pull Ultra-Linear. Cathode Bias.

$V_{a(b)}$	500	V
$V_{a,g2}$	425	V
$I_{a+g2(o)}$	$2 \times 87$	mA
$I_{a+g2(max\ sig)}$	$2 \times 100$	mA
$P_{a+g2(o)}$	$2 \times 40$	W
$P_{a+g2(max\ sig)}$	$2 \times 18$	W
* $R_k$	$2 \times 525 \pm 5\%$	$\Omega$
$V_{g1}$ (approx)	-50	V
$V_{in(g-g)}$	90	V
$R_L(a-a)$	6	k $\Omega$
$z_{out}$	4.5	k $\Omega$
$P_{out}$	50	W
†D	1	%
†Intermodulation	5	%

\*Separate bias resistors are essential.

†Average pair.

### Push-Pull Ultra-Linear. Fixed Bias.

$V_{a(b)}$	560	V
$V_{a,g2}$	550	V
$I_{a+g2(o)}$	$2 \times 50$	mA
$I_{a+g2(max\ sig)}$	$2 \times 150$	mA
$P_{a+g2(o)}$	$2 \times 30$	W
$P_{a+g2(max\ sig)}$	$2 \times 33$	W
* $V_{g1}$ (approx)	-80	V
$V_{in(g-g)}$	120	V
$R_L(a-a)$	4.5	k $\Omega$
$z_{out}$	6.5	k $\Omega$
$P_{out}$	100	W
†D	3—6	%
Intermodulation	12	%

\*A negative bias range of  $70 \pm 25\%$  is recommended.

†The distortion will vary according to the degree of matching.

### Push-Pull Triode Connection. Cathode Bias.

$V_{a(b)}$	400	485	V
$V_{a,g2}$	350	425	V
$I_{a+g2(o)}$	$2 \times 67$	$2 \times 85$	mA
$I_{a+g2(max\ sig)}$	$2 \times 72$	$2 \times 90$	mA
$P_{a+g2(o)}$	$2 \times 24$	$2 \times 40$	W
* $R_k$	$2 \times 525 \pm 5\%$	$2 \times 525 \pm 5\%$	$\Omega$
$V_{g1}$ (approx)	-38	-48	V
$V_{in(g-g)}$	60	70	V
$R_L(a-a)$	4	4	k $\Omega$
$z_{out}$	2.5	2.5	k $\Omega$
$P_{out}$	15	27	W
†D	1—3	1—3	%
Intermodulation	6	6	%

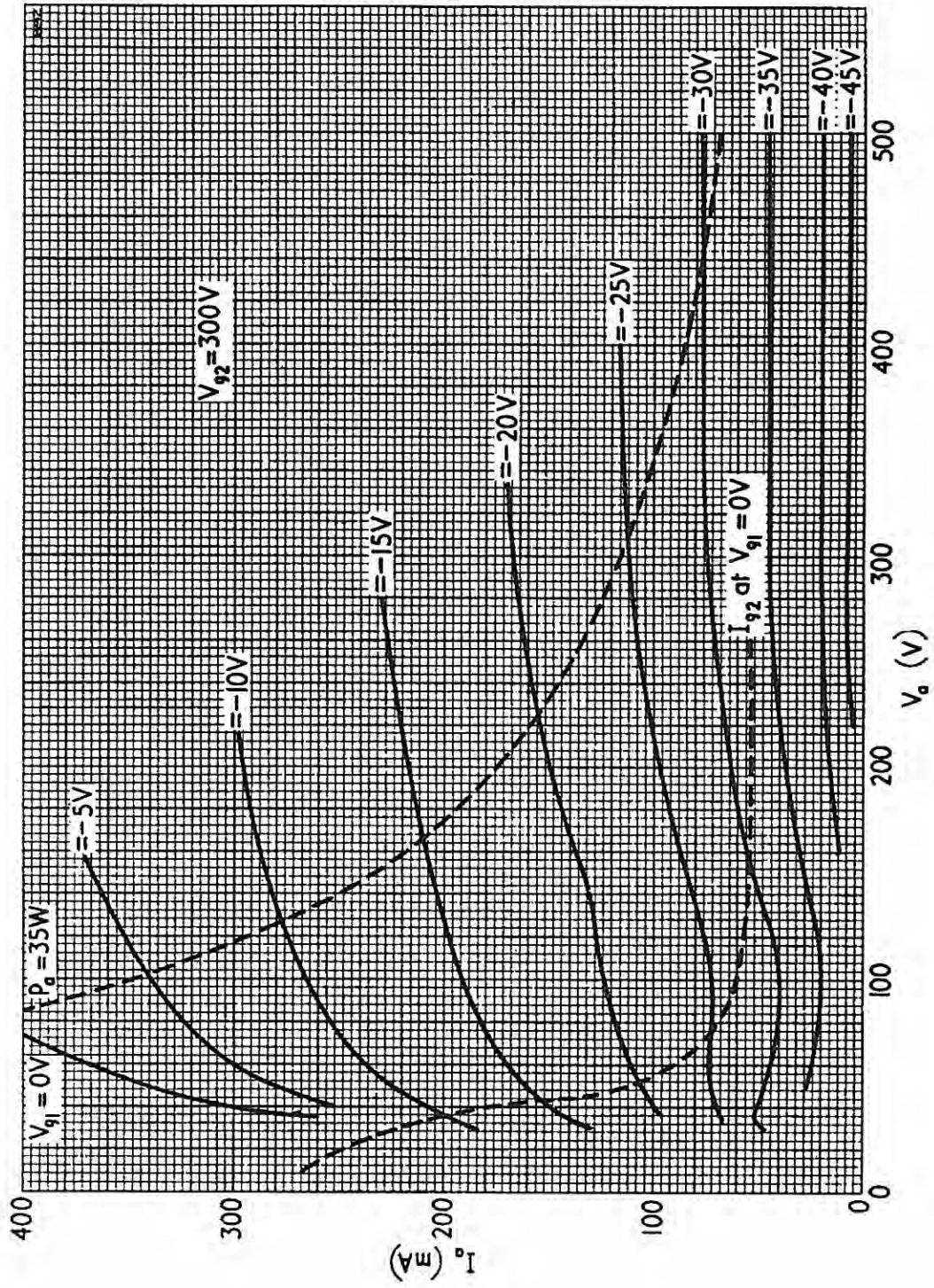
\*Separate bias resistors are essential.

†The distortion will vary according to the degree of matching.

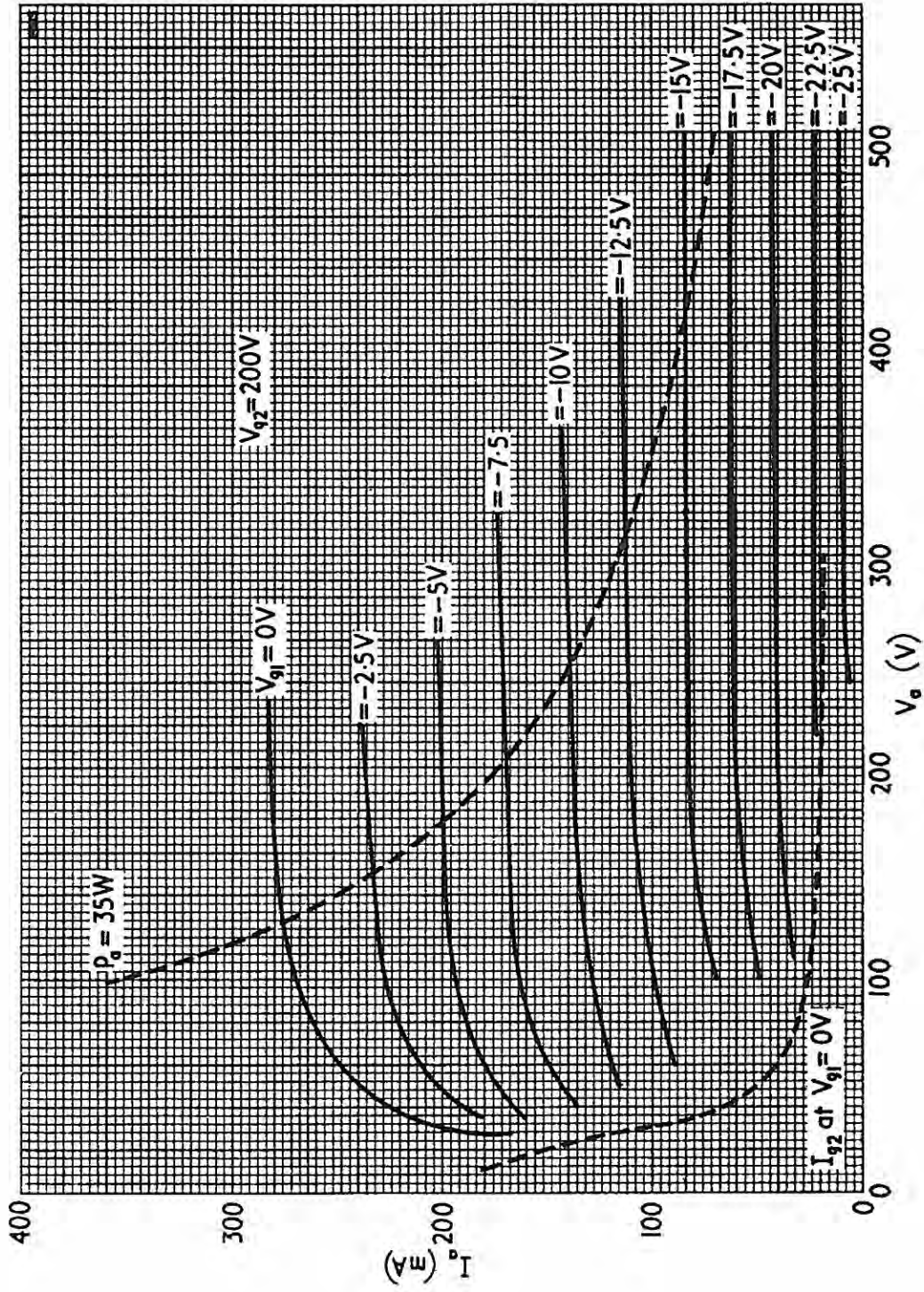
## INSTALLATION

The valve may be mounted horizontally only if pins 4 and 8 are in a vertical plane.

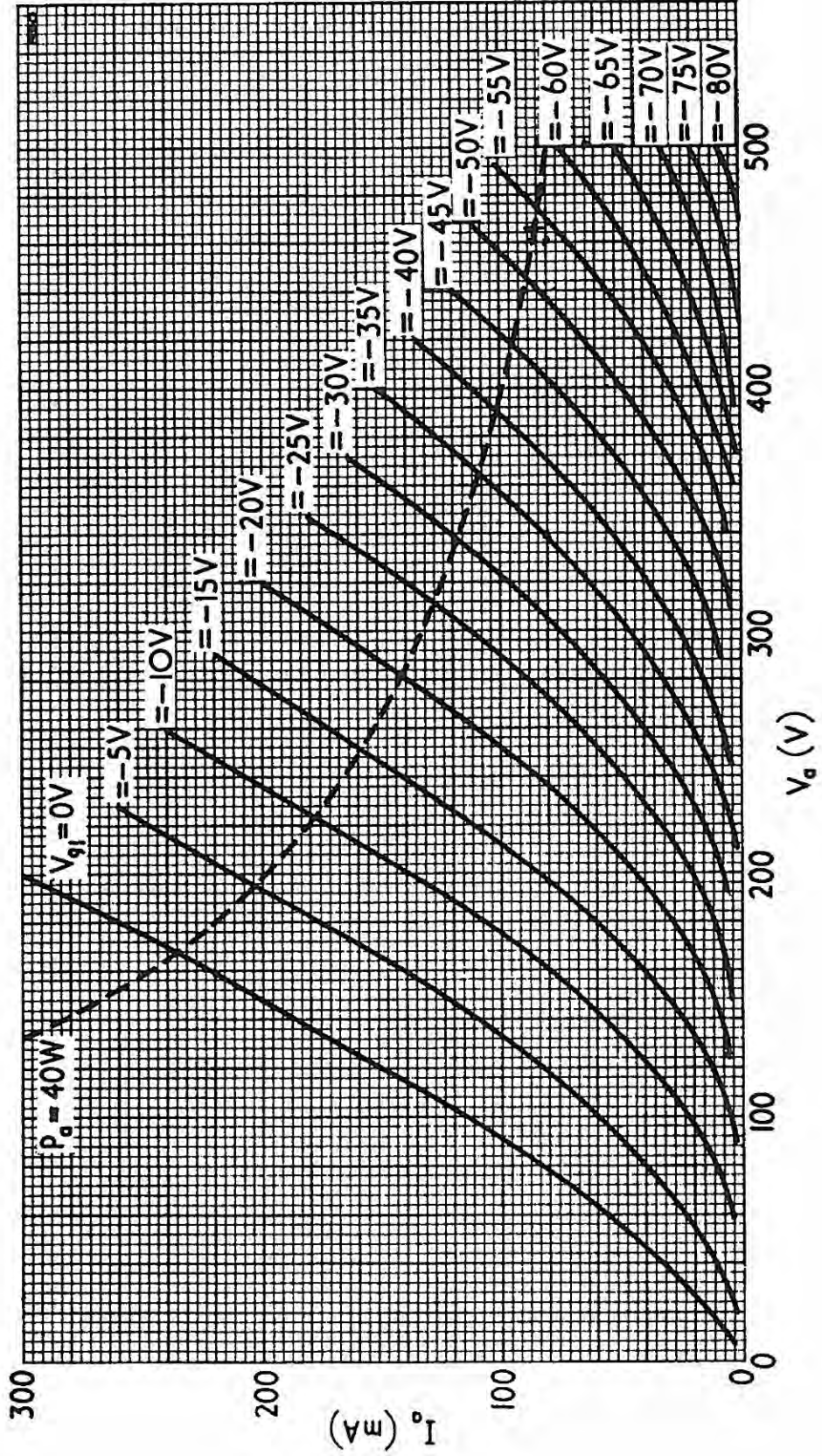
Free air circulation round the valve is desirable; the hottest part of the bulb should not exceed 250°C.



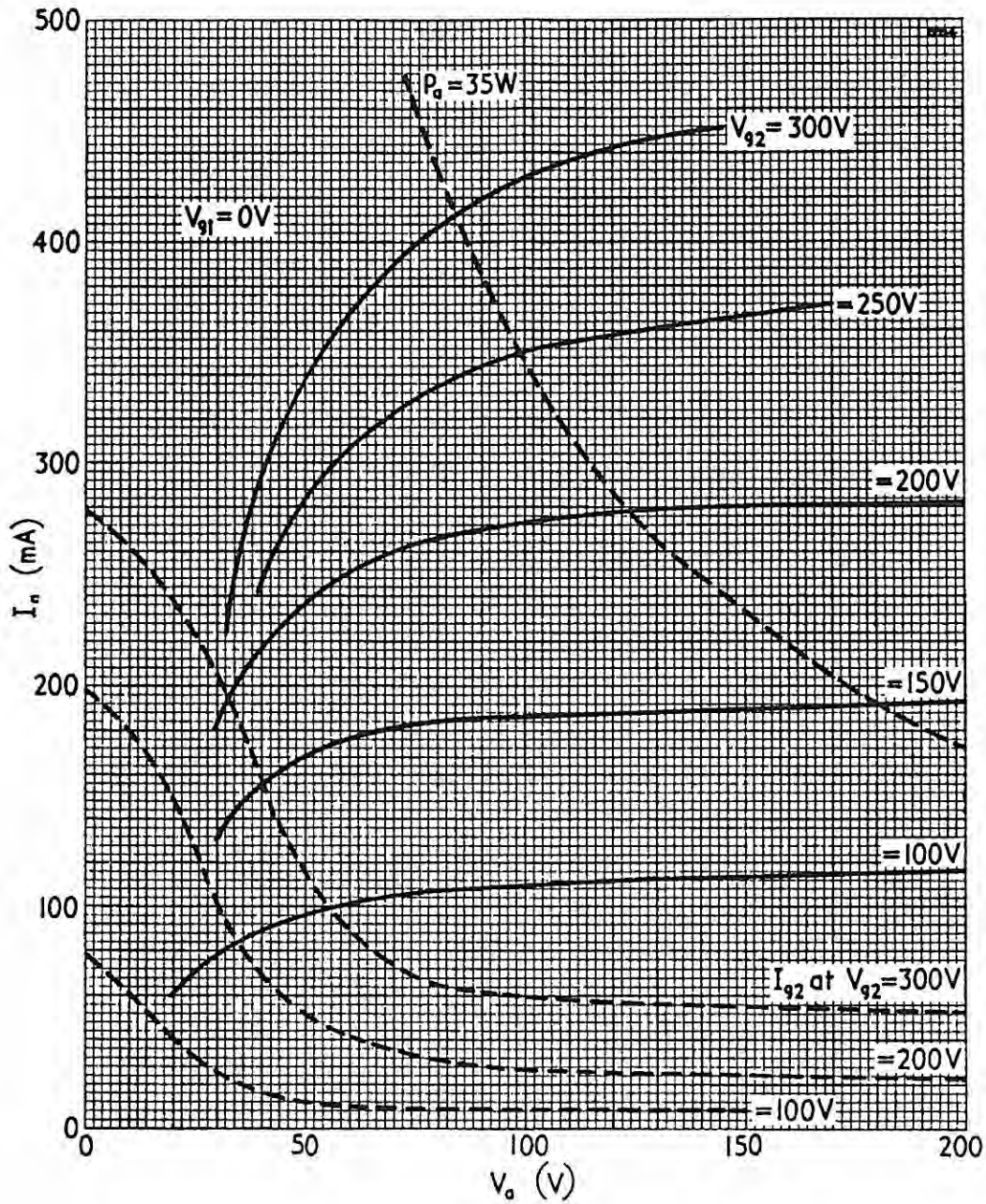
# KT88

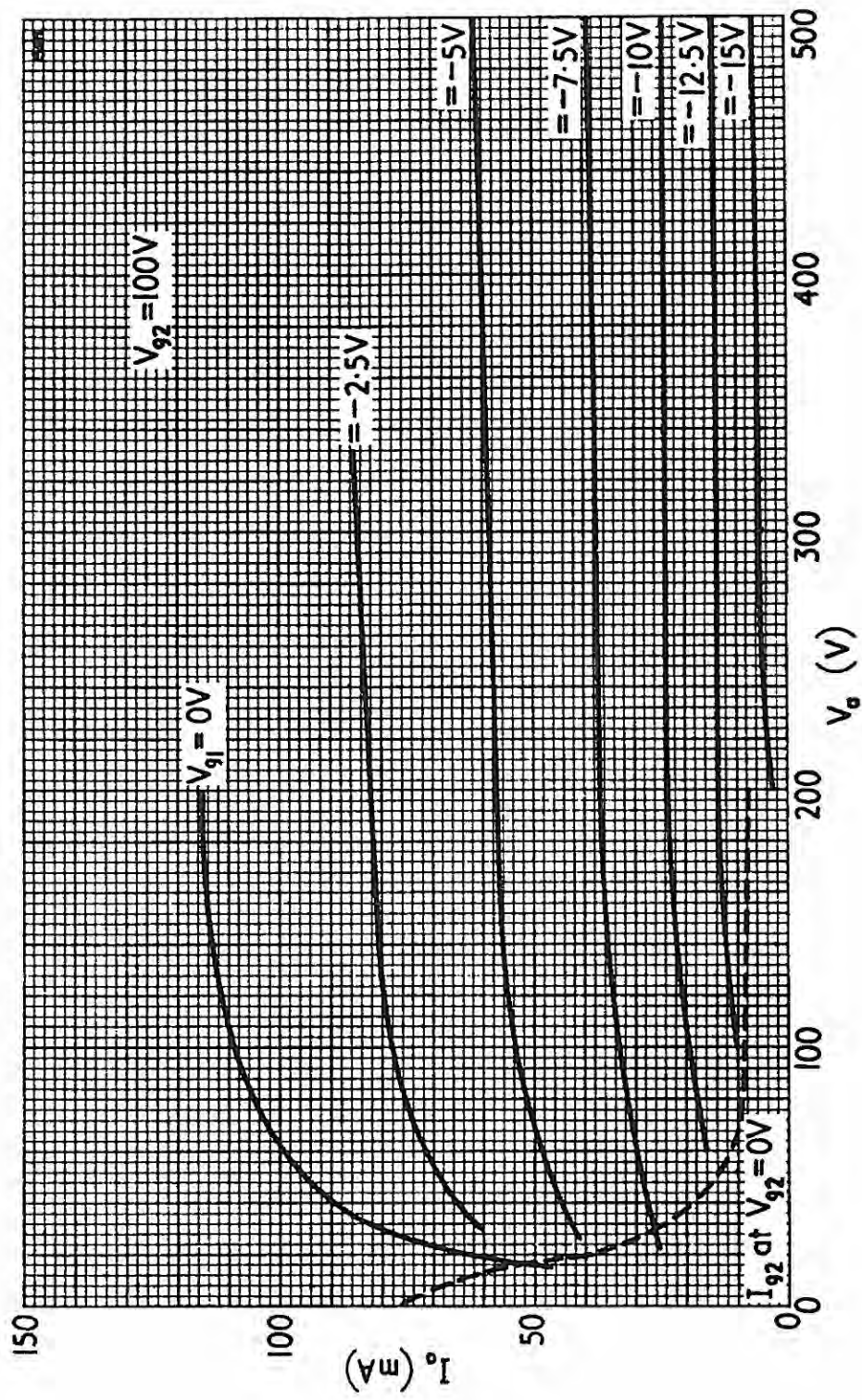


TRIODE CONNECTION



# KT88





# KT88

