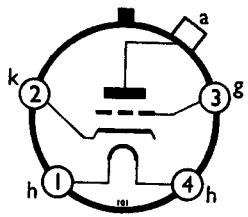
OUTPUT TRIODE
7·5V INDIRECTLY HEATED

DA42

JUNE, 1955

A power triode designed to operate in pairs at zero grid bias in Class B audio amplifiers.

BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside of base.

Base : Medium 4 Pin Bayonet.
Bulb : Dome Top Tubular.

Max overall length :	156	mm.
Max seated length :	141	mm.
Max diameter :	52	mm.
Top Cap :	CT2	

HEATER

V_h	7·5	V
I_h	1·2	A

RATING

V_a	1000	max.	V
p_a	40	max.	W

CHARACTERISTICS

V_a	1000	V
I_a	40	mA
g_m	3·0	mA/V
r_a	24	kΩ
μ	72	

CAPACITANCES

$c_{g\text{-}kh}$ 5·2 pF $c_{a\text{-}kh}$ 1·0 pF $c_{g\text{-}a}$ 4·0 pF

DA42

TYPICAL OPERATION

Push-Pull Class B. Two valves. Data per pair.

V_a	1,000	V
V_g	0	V
I_a (o)	50	mA
I_a (max. sig.)	275	mA
I_g	50	mA
i_g (pk) (per valve)	100	mA
v_{in} (g-g) (pk)	200	V
p_{dr}	5	W
p_a (o) per valve)	25	W
p_a (max. sig.) (per valve)	50	W
R_L (a-a)	10	kΩ
P_{out}	175	W
D	6	%
z_{in} (g-g)	4	kΩ
z_{out}	15	kΩ

The conditions given above apply to normal speech and music only. Continuous 100% tone modulation will result in excessive dissipation and for such applications, R_L(a-a) should be increased to 12 kΩ, resulting in a reduction of power output to 150 W.

GENERAL

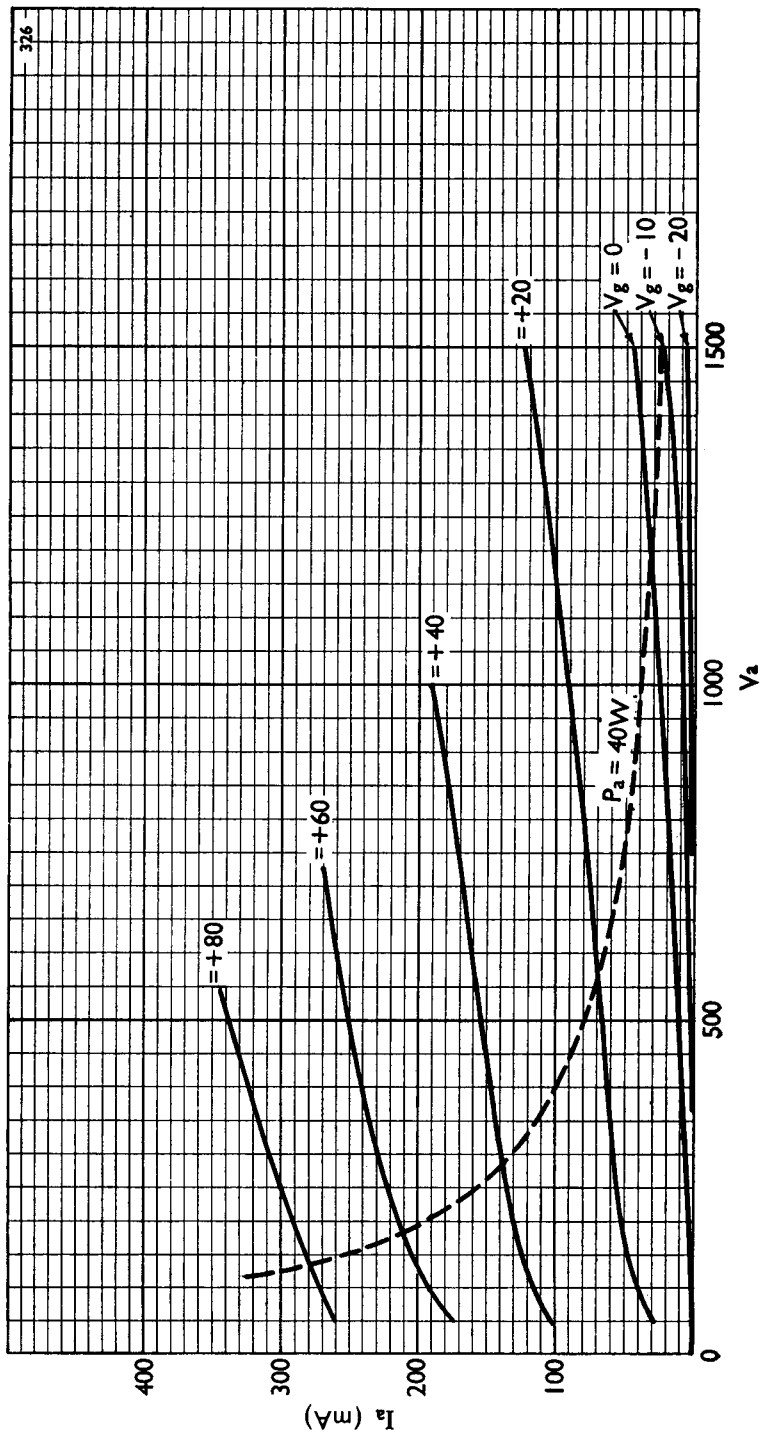
The DA42 may be used as a replacement for the DA41 in existing equipment. In such cases, since the heater and cathode of the DA42 are not internally connected it is essential that pin 2 of the valve socket is earthed.

MOUNTING

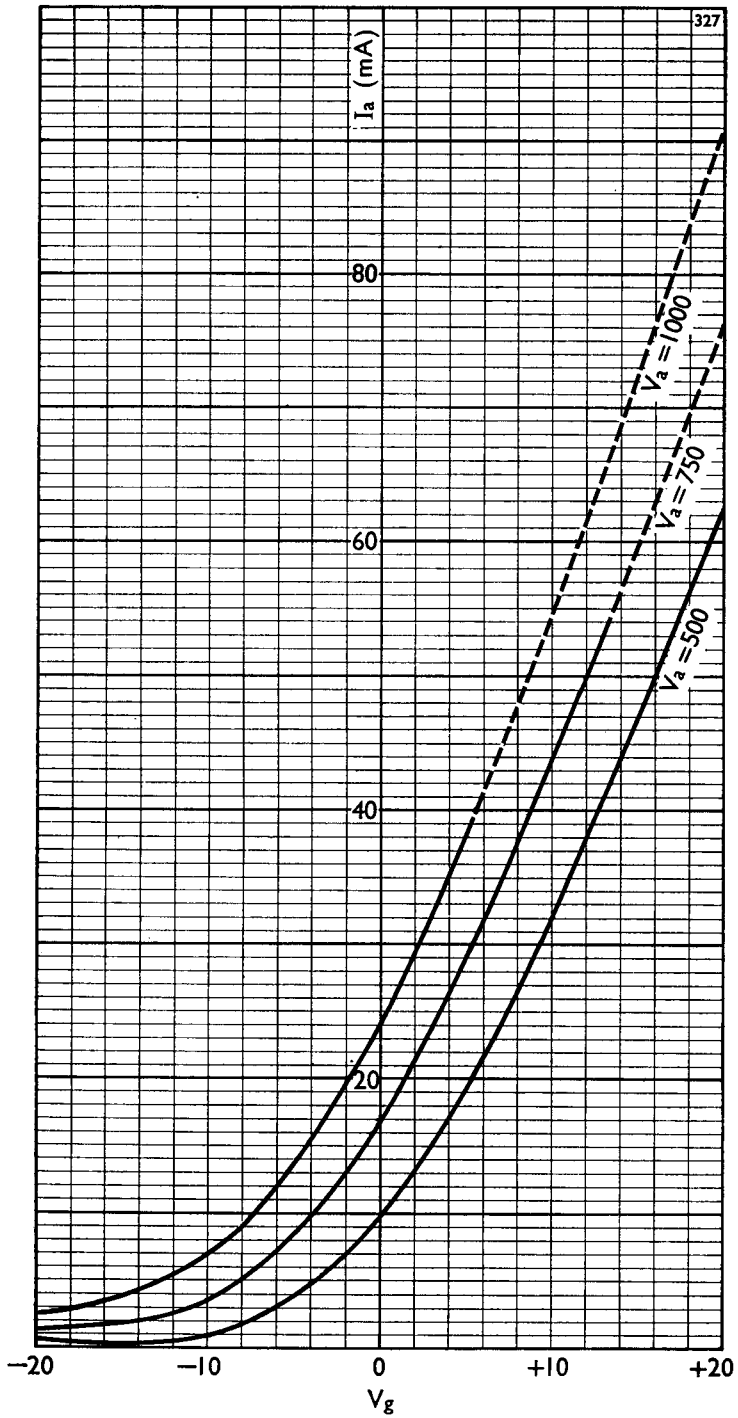
Vertical with base down.

VENTILATION

No special precautions are necessary. The temperature of the hottest part of the bulb must not exceed 225°C.


326
I_a (mA)
400
300
200
100
0
500
1000
1500
V_a
$V_g = 0$
$V_g = -10$
$V_g = -20$
= +20
= +40
= +60
= +80
P_a = 40W

DA42



Printed in England. C.