



Triode Type DA 250

(POWER AMPLIFIER)

General. The DA 250 is a power amplifying triode fitted with a directly heated oxide-coated cathode. The valve has been designed for use principally in push-pull amplifiers.

Cooling. Adequate ventilation must be provided.

Mounting. The valve must be mounted vertically with anode uppermost.

APPROXIMATE DATA

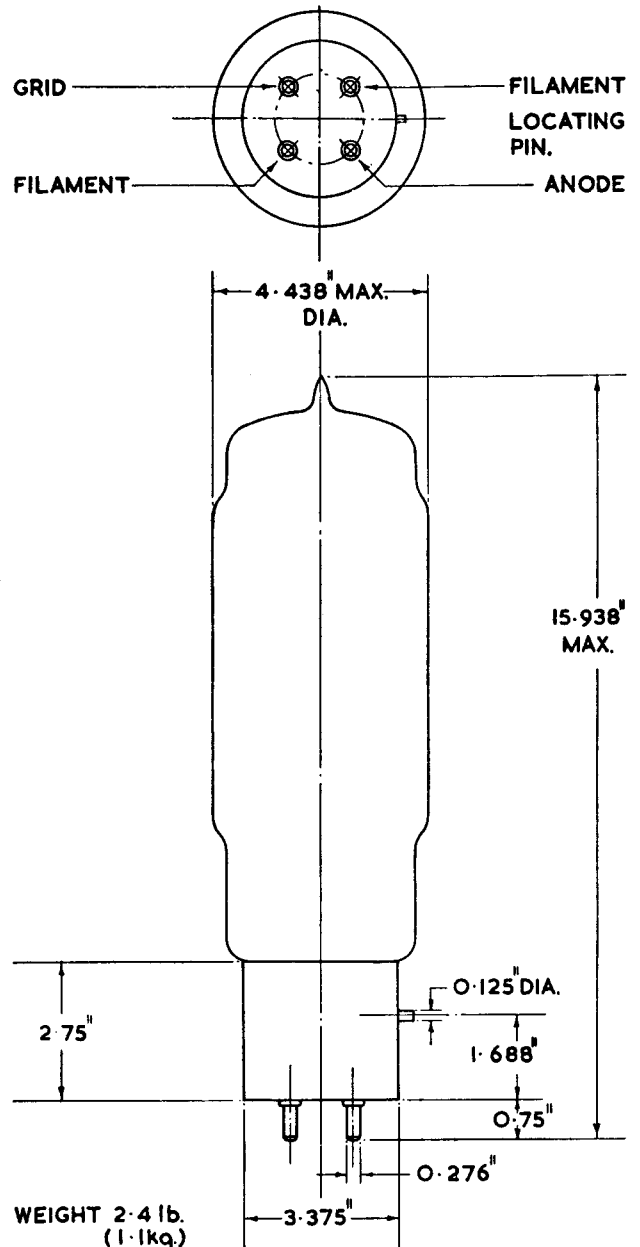
V_f	10.0	V		
I_f	2.0	A		
V_a	2,500	V		
$P_{a(max)}$	250	W		
μ	} taken at V_a 2,500 V P_a 250 W	}		
r_a			16	Ω
g_m			2,300	Ω
			7.0 mA/V	
C_{a-g1}	41	pF		
C_{a-k}	6	pF		
C_{g1-k}	21	pF		

Typical Operation

(1) TWO VALVES. CLASS AB1. PUSH-PULL

(Operating data per pair of valves unless otherwise stated)

$V_{a(zero-sig)}$	2,700	V
$V_{a(max-sig)}$	2,500	V
$I_{a(zero-sig)}$	100	mA
$I_{a(max-sig)}$	360	mA
V_{g1}	-145	V
$V_{in(pk)} (g_1-g_1')$	290	V
$R_{L(a-a'')} \text{ per valve}$	12,000	Ω
$P_{a(zero-sig)} \text{ per valve}$	135	W
$P_{a(max-sig)} \text{ per valve}$	250	W
$P_{out} (a)$	400	W
$D_{(max)}$	5.0	%



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(2) TWO VALVES. CLASS AB2. PUSH-PULL*(Operating data per pair of valves unless otherwise stated)*

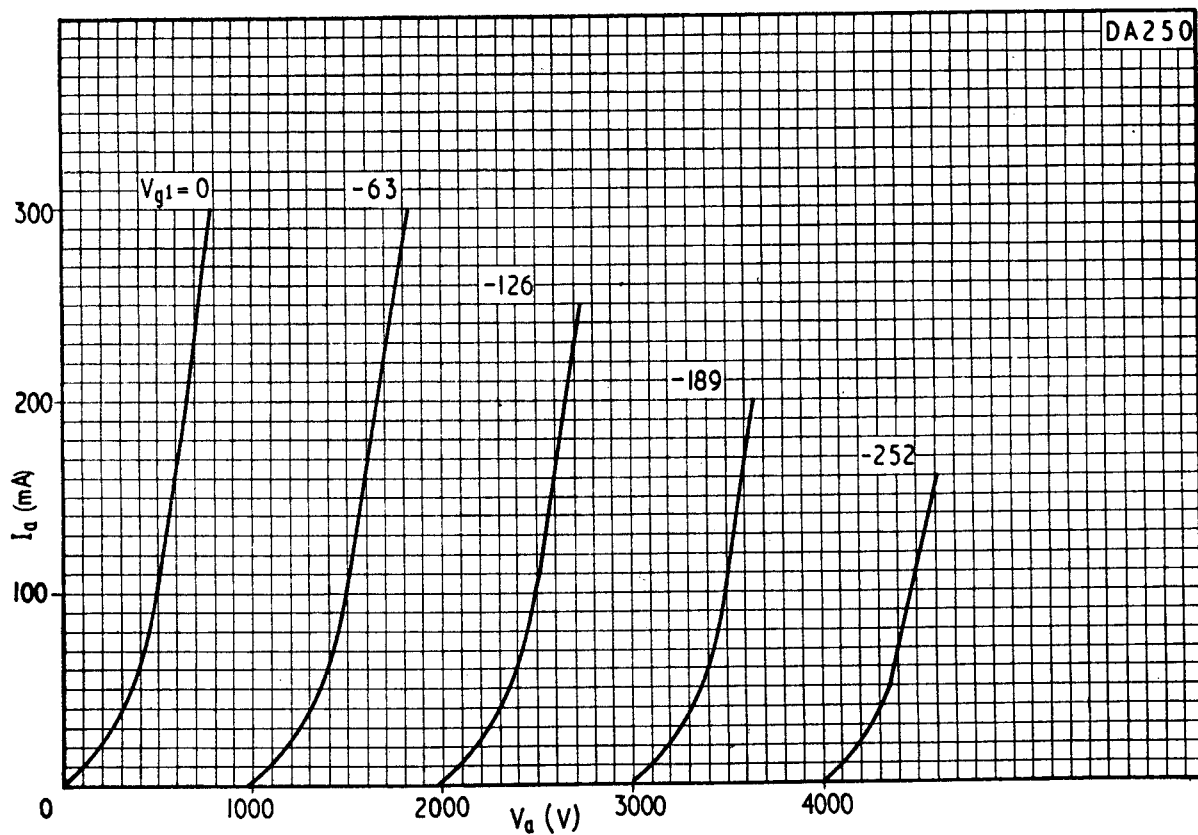
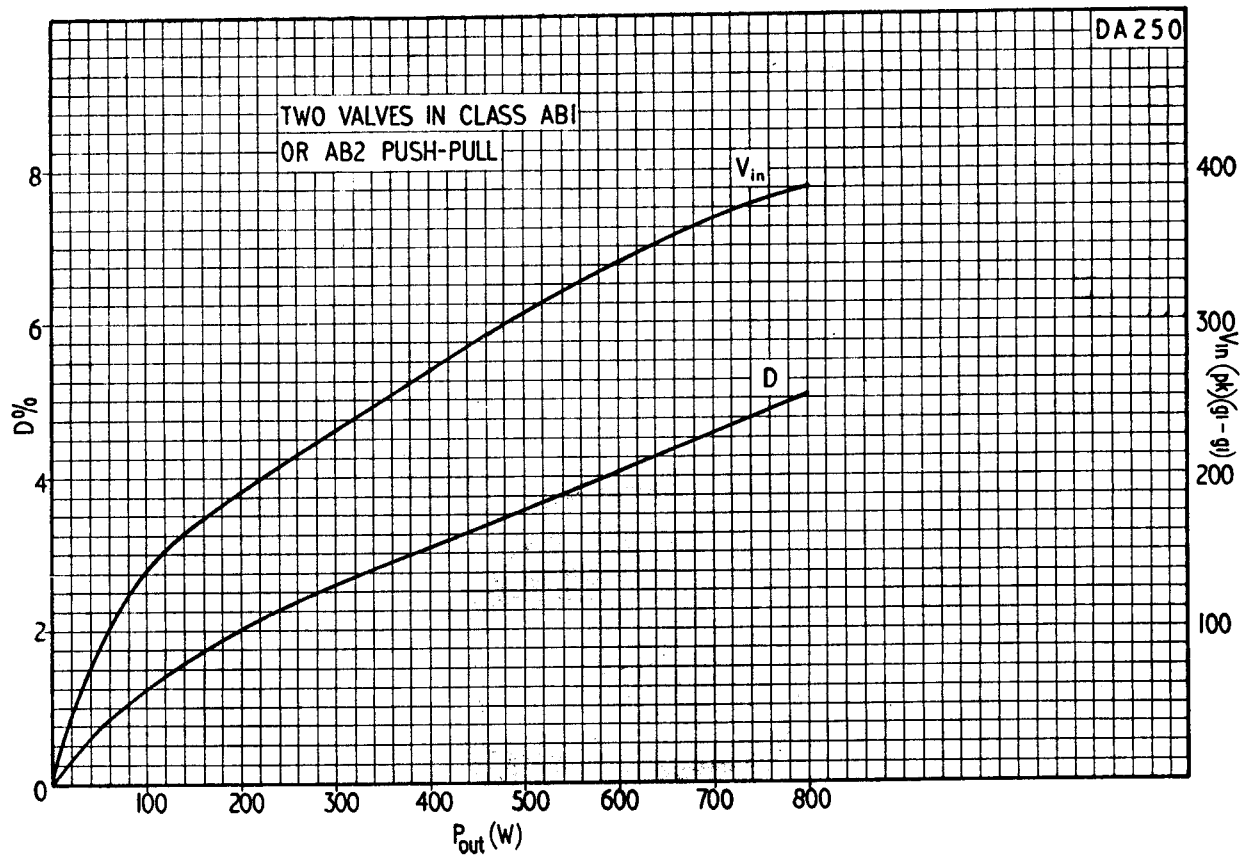
$V_{a(\text{zero-sig})}$	2,700	V
$V_{a(\text{max-sig})}$	2,500	V
$I_{a(\text{zero-sig})}$	100	mA
$I_{a(\text{max-sig})}$	500	mA
V_{g1}	-145	V
$I_{g1(\text{max-sig})}$	20	mA
$V_{in(pk)} (g_1' - g_1'')$	400	V
$R_{L(a' - a'')}$	12,000	Ω
$P_{a(\text{zero-sig})}$ per valve	135	W
$P_{a(\text{max-sig})}$ per valve	190	W
P_{out} (a)	800	W
D	6.0	%

(3) OPERATION AT REDUCED ANODE VOLTAGES. TWO VALVES. CLASS AB2. PUSH-PULL*(Operating data per pair of valves unless otherwise stated)*

V_a	2,000	2,250	2,500	V
$I_{a(\text{zero-sig})}$	100	100	100	mA
$I_{a(\text{max-sig})}$	400	450	500	mA
V_{g1}	-115	130	-145	V
$V_{in(pk)} (g_1' - g_1'')$	330	370	400	V
$R_{L(a' - a'')}$	12,000	12,000	12,000	Ω
P_{out}	525	700	800	W

NOTES

- (a) This value may vary by $\pm 6\%$.
1. The outputs obtainable under reduced anode voltage Class AB1 conditions are approximately one-half of those given in Table 3.
 2. The power supply should have an impedance not greater than 400 Ω .
 3. The peak anode dissipation under Class AB2 push-pull conditions occurs at approximately half full output.





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