

R.F. POWER TRIODE

TYS2-250

Power triode in silica envelope, rated for a continuous anode dissipation of 250W. Its main application is as a self-excited oscillator in low power r.f. heating equipment, but it may also be employed as an r.f. power amplifier in industrial or transmitting apparatus.

This data sheet should be read in conjunction with GENERAL OPERATIONAL RECOMMENDATIONS - TRANSMITTING VALVES, which precede this section of the Handbook.

FILAMENT

Thoriated tungsten, suitable for a.c. or d.c. operation.

V_f	6.5	V
I_f (approx.)	12	A

MOUNTING POSITION

Vertical

CAPACITANCES

C_{a-g}	11	pF
C_{g-f}	5.0	pF
C_{a-f}	1.0	pF

CHARACTERISTICS (measured at $V_a = 2.0kV$, $I_a = 80mA$)

g_m	3.5	mA/V
μ	10.5	
r_a	3.0	k Ω

LIMITING VALUES (absolute ratings)

V_a max. ($< 50Mc/s$)	2.5	kV
V_a max. ($< 75Mc/s$)	2.0	kV
p_a max.	250	W
I_k max.	500	mA
I_g max.	65	mA
$-V_g$ max.	350	V
R_{g-f} max.	7.5	k Ω
P_{in} max. ($< 50Mc/s$)	1.0	kW
P_{in} max. ($< 75Mc/s$)	800	W

For frequencies above 75Mc/s reduced voltages and inputs must be used, as shown on page C3.

10 per cent. increase may be allowed on the above voltages for ripple and h.t. regulation.

OPERATING CONDITIONS AS CLASS "C" AMPLIFIER

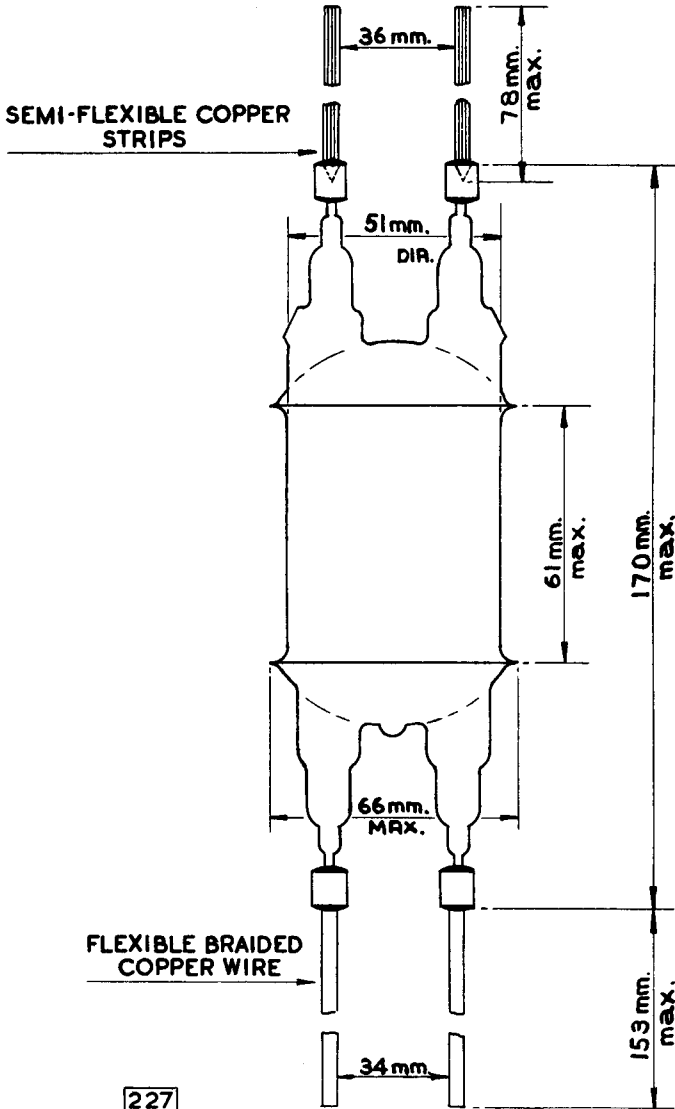
f	75	10	Mc/s
V_a	2.0	2.0	kV
V_g	-250	-290	V
I_a	400	400	mA
I_g	50	60	mA
P_{out}	550	760	W
η	69	76	%

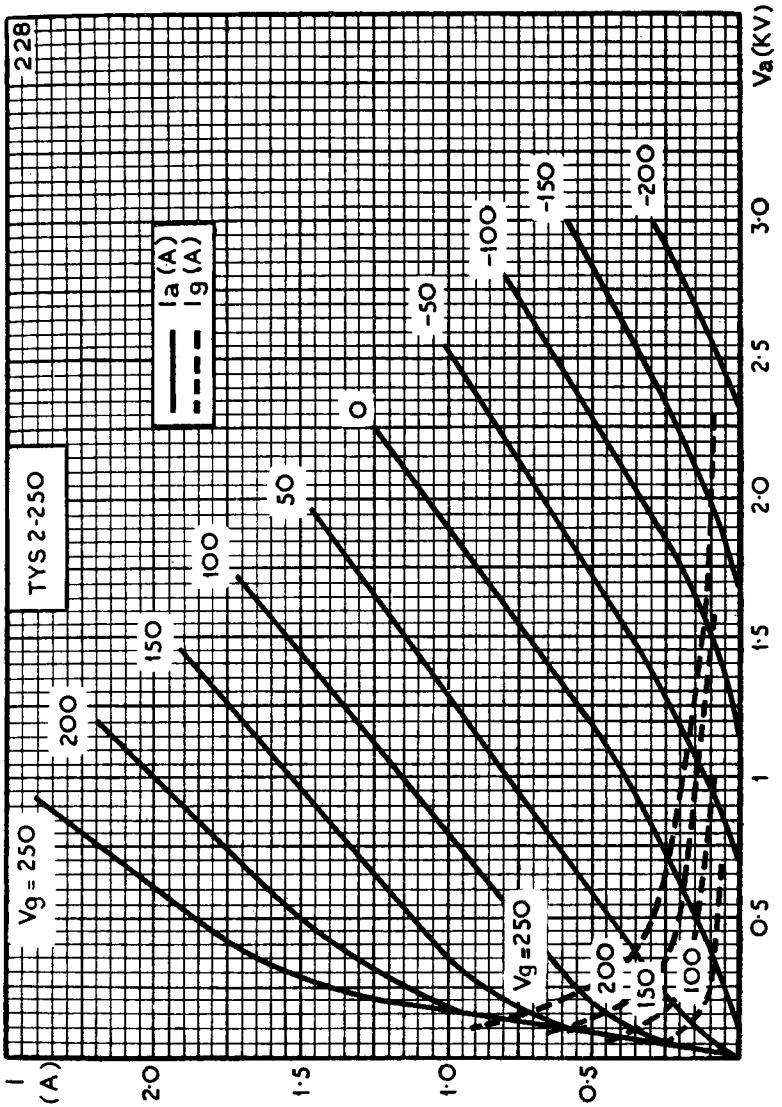
WEIGHT

Valve only	{ 5	oz
	{ 153	g

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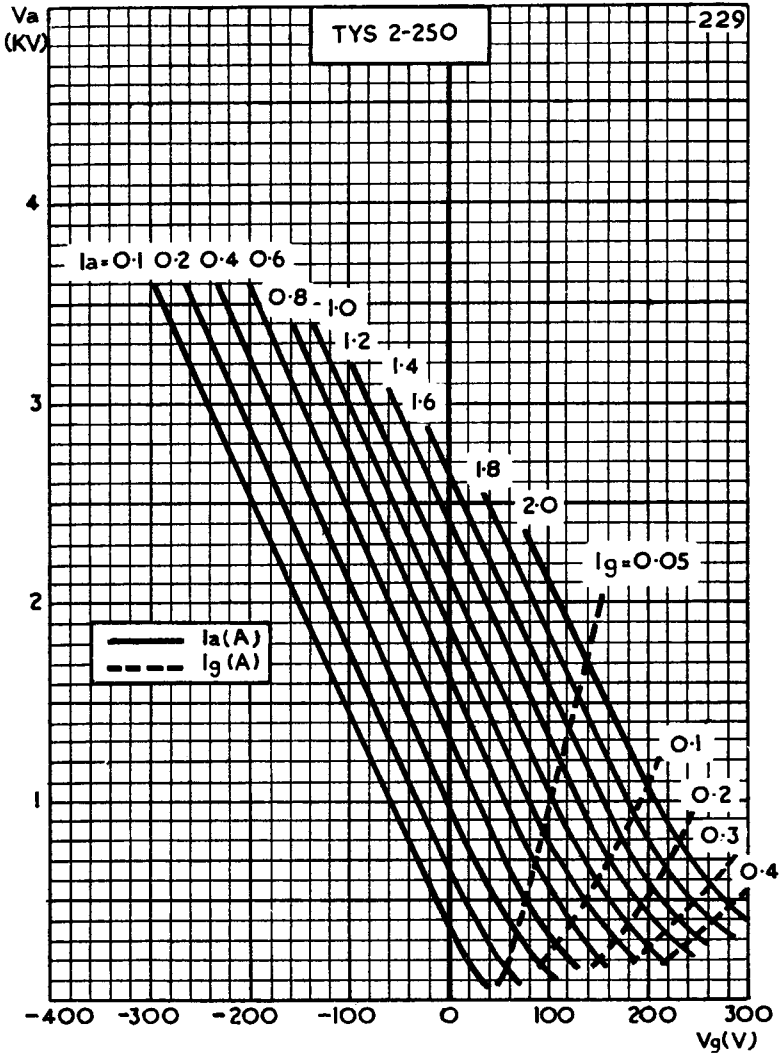




ANODE CURRENT PLOTTED AGAINST ANODE VOLTS

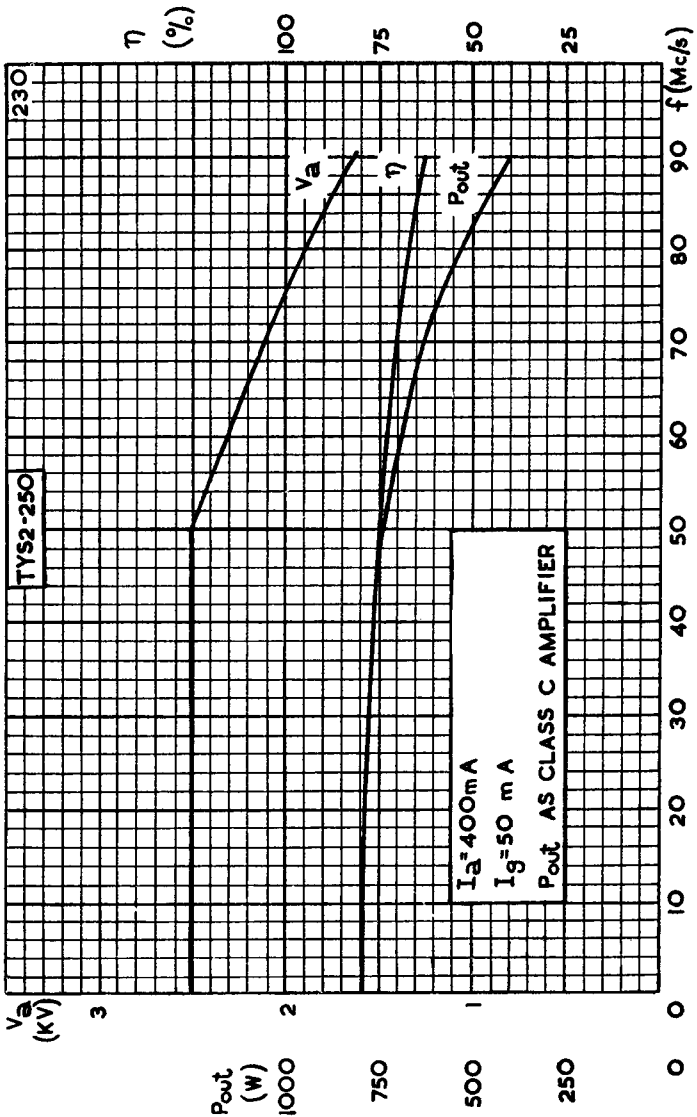
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CONSTANT CURRENT CURVES





ANODE VOLTAGE, OUTPUT POWER AND EFFICIENCY
 PLOTTED AGAINST OPERATING FREQUENCY