R.F. POWER TRIODE

TYS5-1000

R.F. power triode in silica envelope, rated for a continuous anode dissipation of 1.5kW, and for operation at 30Mc/s. Primarily intended as a self-excited oscillator in r.f. heating equipment, but also suitable for use as a r.f. amplifier in transmitting or industrial equipment. Forced-air cooling is not required.

This data 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	10	V
I_f (approx.)	26	A
Resistor for limiting starting current	0.27 ± 5%	Ω

MOUNTING POSITION Vertical, filament leads downwards

CAPACITANCES

c_{a-g}	23	pF
c_{g-f}	15.5	pF
c_{a-f}	1.5	pF

CHARACTERISTICS (measured at V_a = 5kV, I_a = 300mA)

g_m	6.0	mA/V
μ	35	
r_a	5.85	kΩ

LIMITING VALUES (absolute ratings)

V_a max.	5.0	kV
p_a max.	1.5	kW
I_k max.	1.4	A
$-V_g$ max.	600	V
I_g max.	160	mA
Max. operating frequency at full ratings	30	Mc/s

OPERATING CONDITIONS AS CLASS "C" SELF-EXCITED OSCILLATOR AT 3Mc/s

V_a	5.0	kV
V_g	−360	V
I_a	1.1	A
I_g	127	mA
P_{out}	4.0	kW
η	73	%

WEIGHT

Valve only	1 lb	7 oz
	650	g

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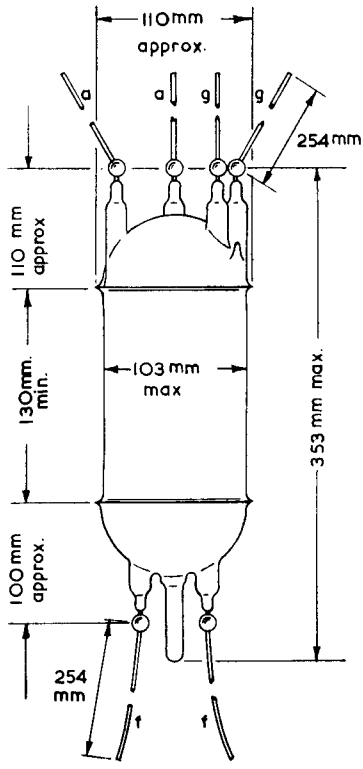

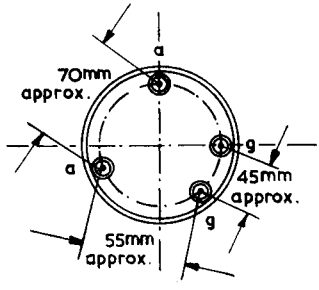

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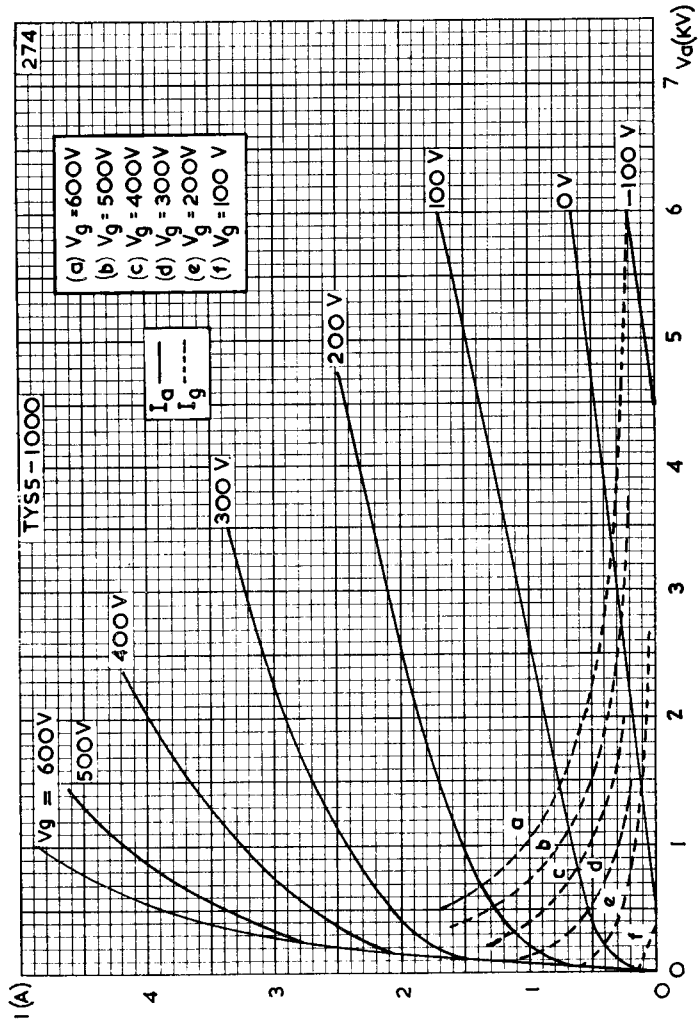
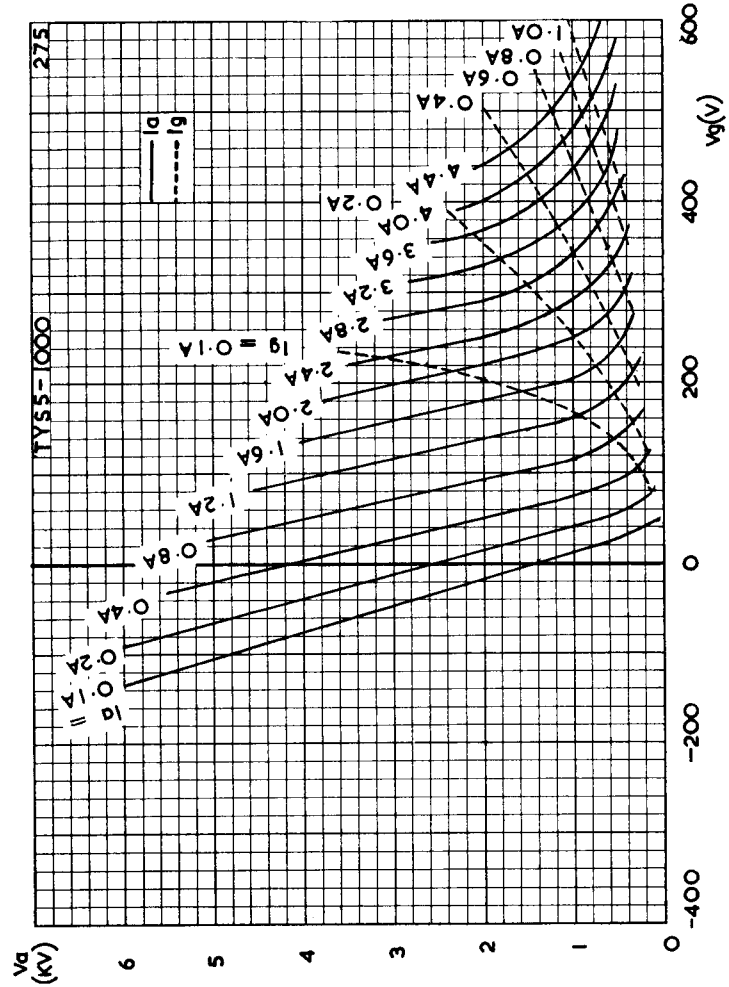
TYS5-1000



ANODE CURRENT AND GRID CURRENT PLOTTED AGAINST ANODE VOLTAGE



CONSTANT CURRENT CURVES