

GENERAL

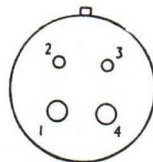
The 21N13 is a mercury vapour thyatron suitable for welding and motor control. It has an indirectly heated oxide coated cathode.

RATINGS

Heater voltage	V_h	5.0	V
Heater current	I_h	5.0	A
Maximum peak forward anode voltage		1.5	kV
Maximum peak inverse anode voltage	P.I.V. _{max}	1.25	kV
Maximum negative grid voltage before conduction	$V_{g(max)}$	-500	V
Maximum negative grid voltage during conduction	$V_{g(max)}$	-10	V
Maximum mean cathode current (max averaging time 15 sec)	$I_{k(av)max}$	3.0	A
Maximum peak cathode current (25c/s and above)	$i_{k(pk)max}$	20	A
Maximum surge cathode current (fault protection max duration 0.1 sec)		200	A
Critical grid current (at $V_a = 1.0$ kV)		<10	μ A
Maximum power supply frequency		150	c/s
Condensed mercury temperature limits	T_{Hg}	40 to 70	°C
Control ratio		150 : 1	
De-ionisation time (approx)	t_d	1000	μ s
Ionisation time (approx)	t_i	10	μ s
Anode voltage drop		16	V
Maximum grid resistance	$R_g(max)$	100	k Ω
Recommended minimum grid resistance	$R_g(min)$	10	k Ω

MOUNTING POSITION—Vertical, base down

BASE—UX4 (E.I.A. No. A4-10)



Viewed from free end of pins.

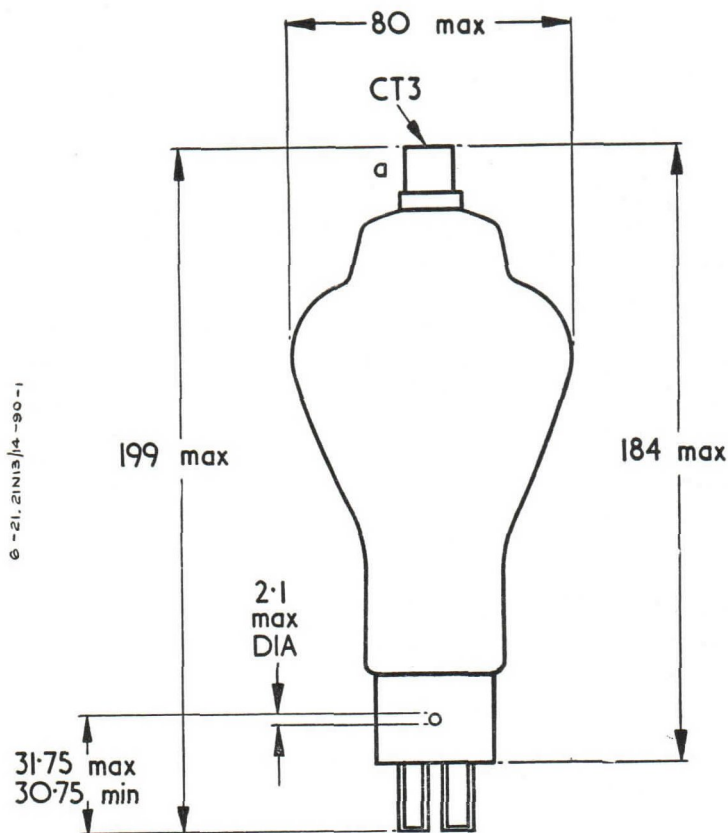
CONNECTIONS

Pin 1	Heater	h
Pin 2	Heater, Cathode	h,k
Pin 3	Grid	g
Pin 4	Heater, Cathode	h,k
Cap	Anode	a

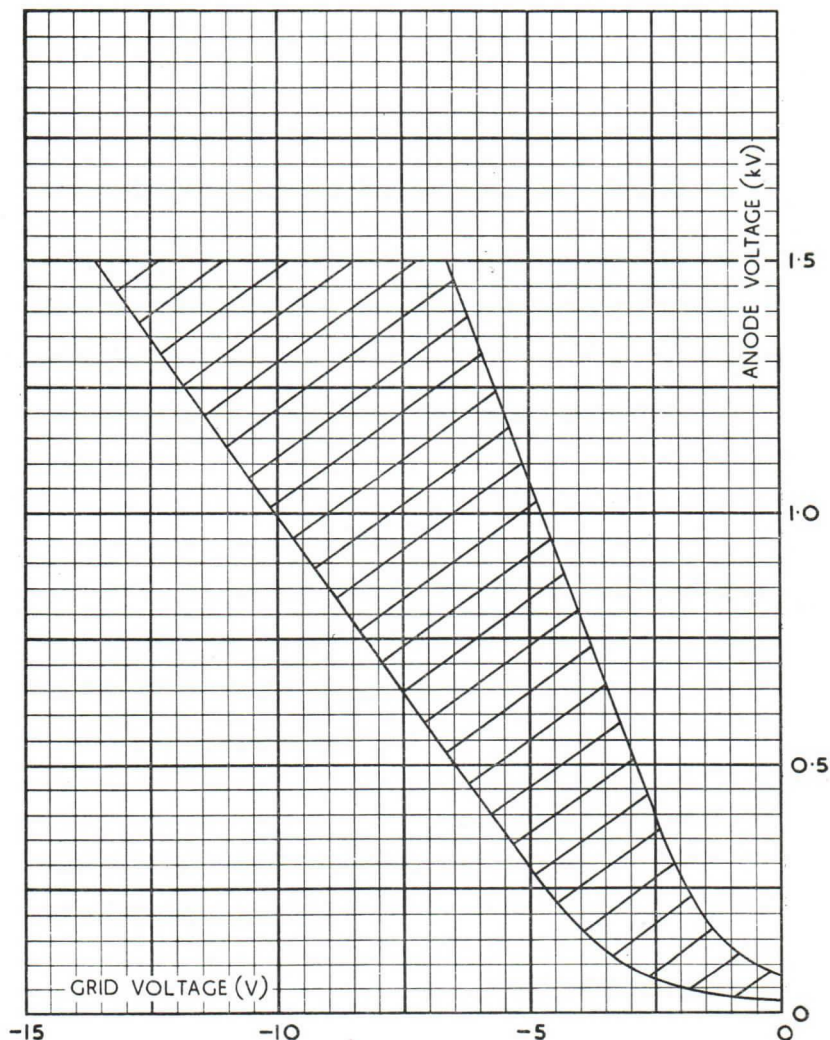
21N13

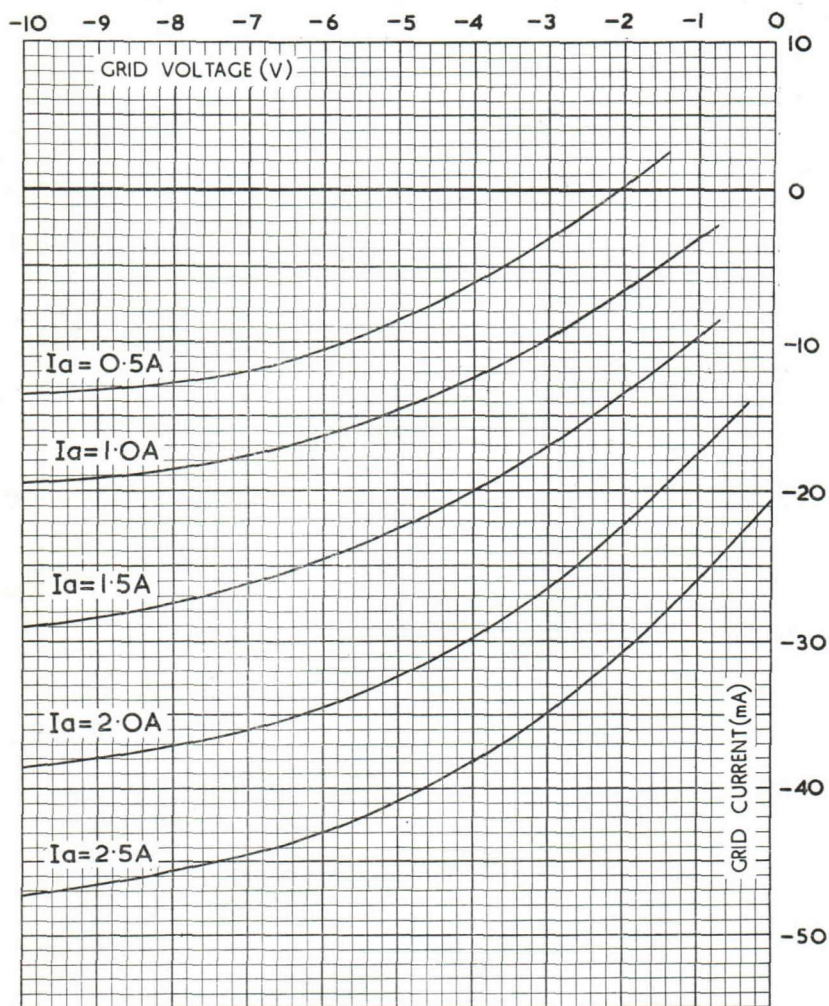
Mercury Vapour Thyatron

AEI



All dimensions in mm.

CHARACTERISTIC CURVES: V_a/V_g 

CHARACTERISTIC CURVES: I_g/V_g 



RATING CURVE : Forward Voltage, P.I.V./ T_{Hg} (Fault Conditions).

