AEI Mercury Vapour Thyratron 21N13

GENERAL

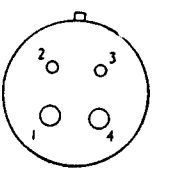
The 21N13 is a mercury vapour thyratron suitable for welding and motor control. It has an indirectly heated oxide coated cathode.

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=1·0kV)		<10	μA
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	μs
Ionisation time (approx)	t_i	10	μs
Anode voltage drop		16	V
Maximum grid resistance	$R_{g(max)}$	100	kΩ
Recommended minimum grid resistance	$R_{g(min)}$	10	kΩ

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

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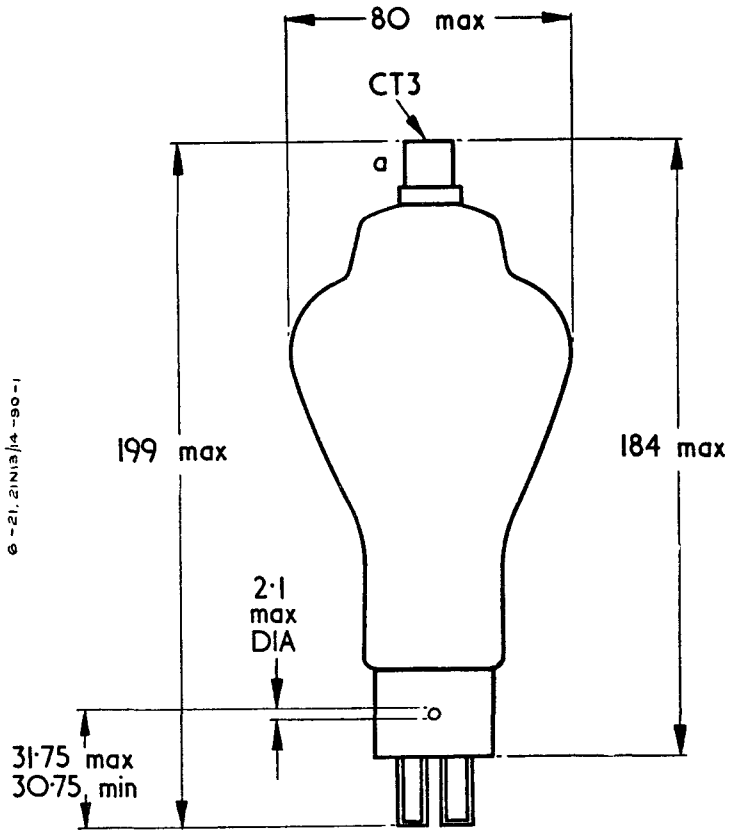
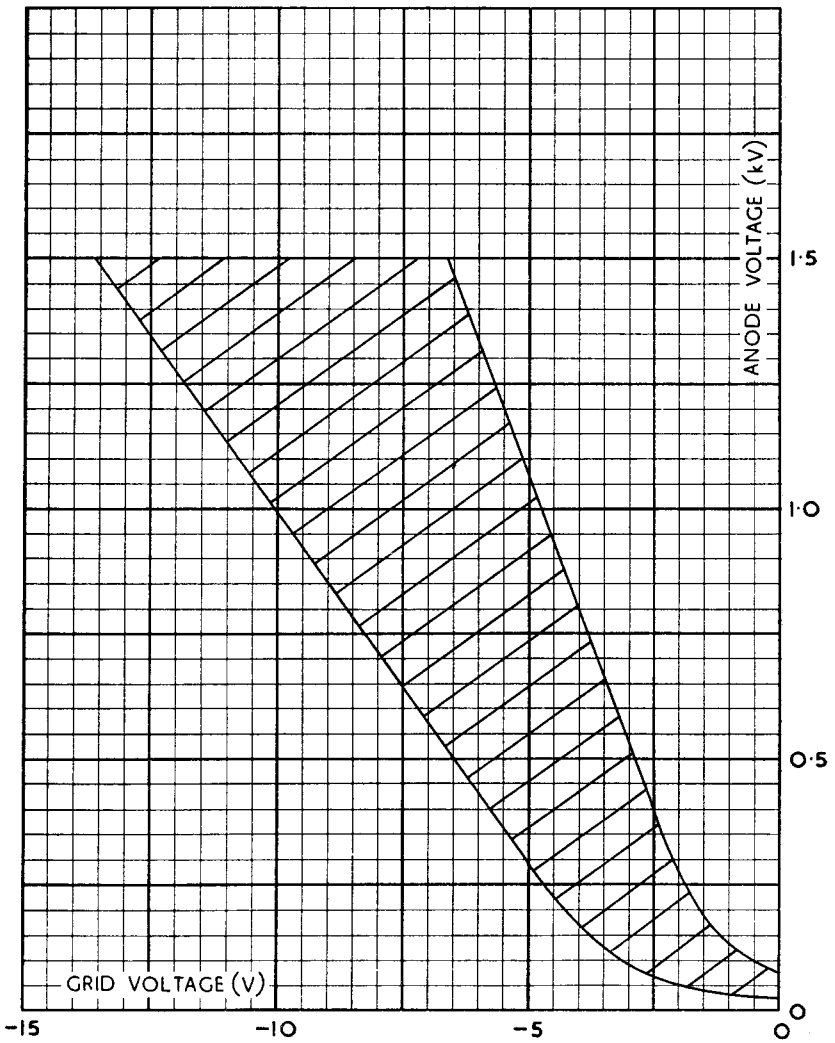


All dimensions in mm.

CHARACTERISTIC CURVES: V_a/V_g



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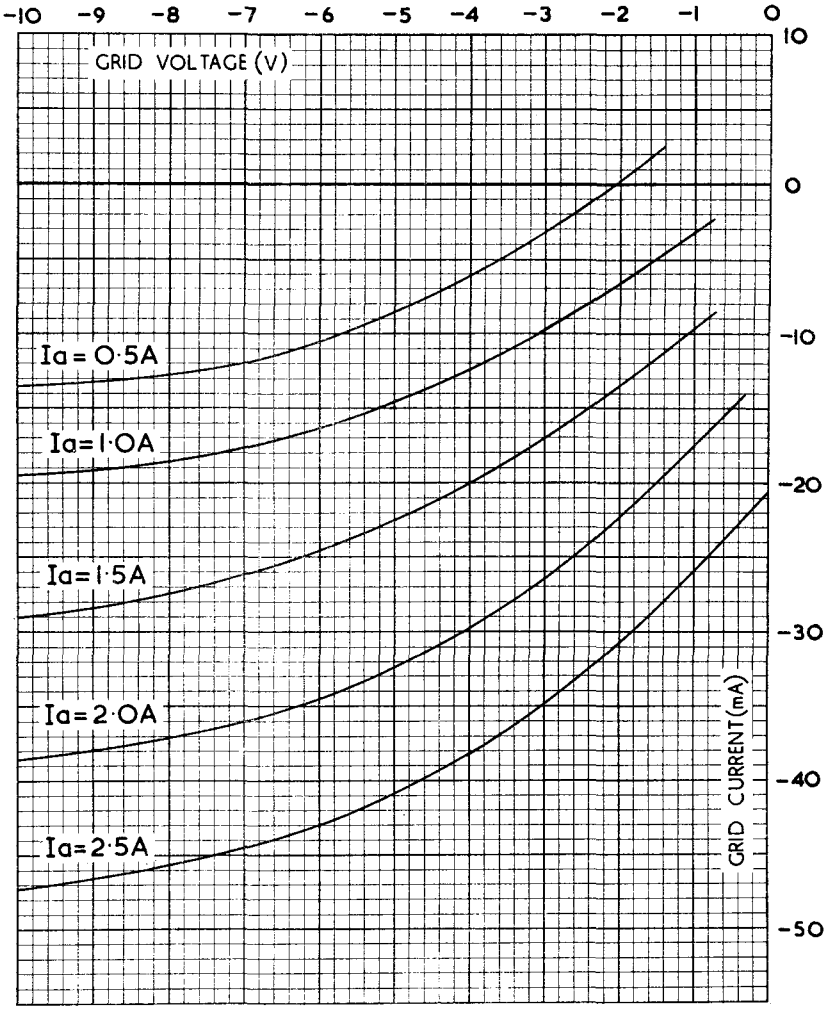
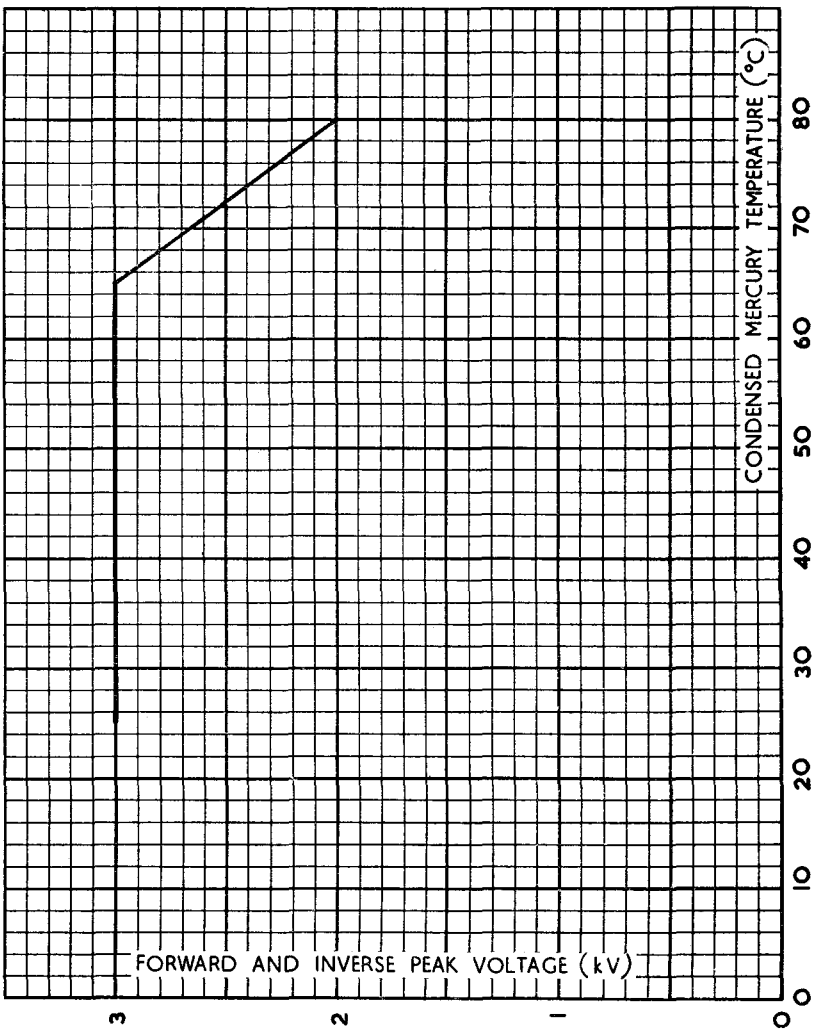
CHARACTERISTIC CURVES : I_g/V_g



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



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