AEI Mercury Vapour Thyratron 21N14

GENERAL

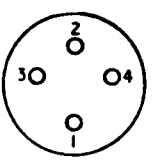
The 21N14 is a mercury vapour thyratron suitable for welding and motor control. It has an indirectly heated oxide-coated cathode.

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 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
Maximum 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 75°C	
Control ratio		150 : 1	
De-ionisation time (approx)	t_d	1,000	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—B4



Viewed from free end of pins.

CONNECTIONS

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

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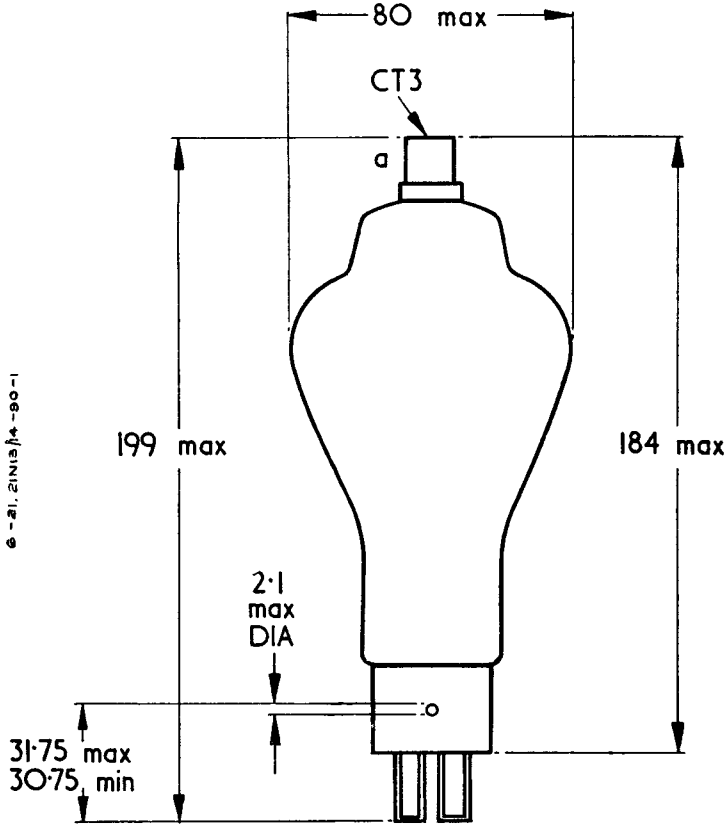
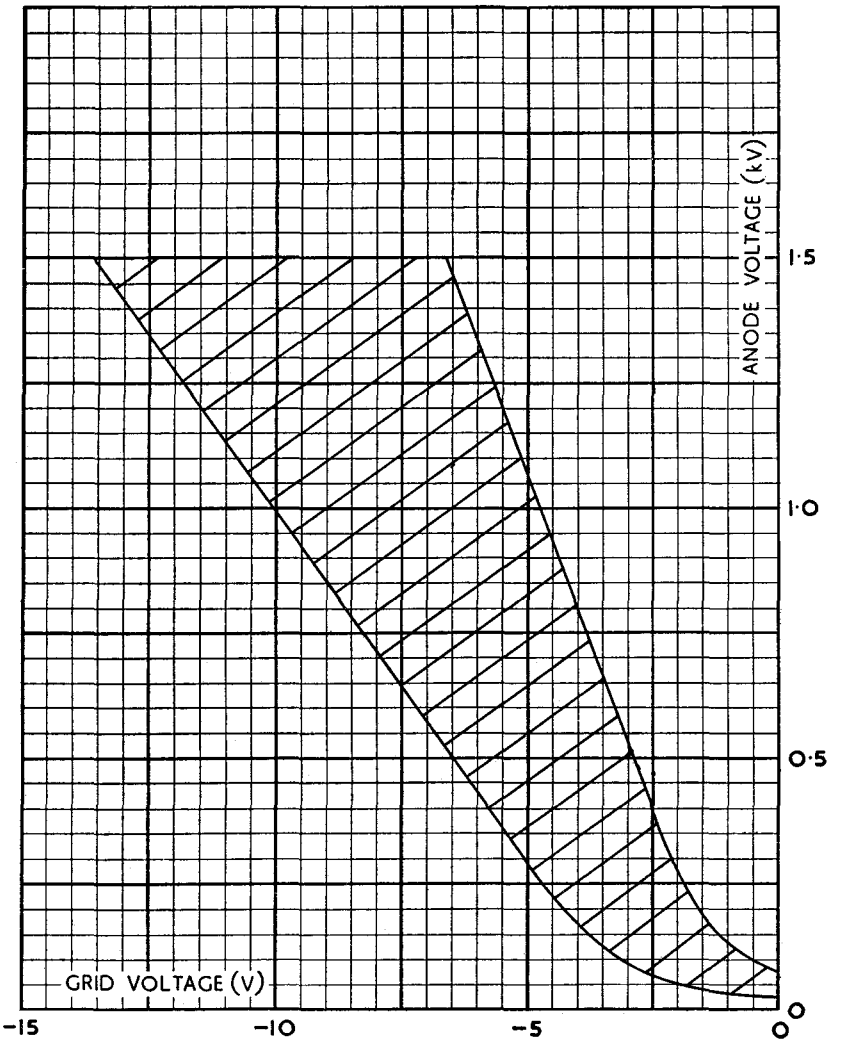


All dimensions in mm.

CHARACTERISTIC CURVES : V_a/V_g



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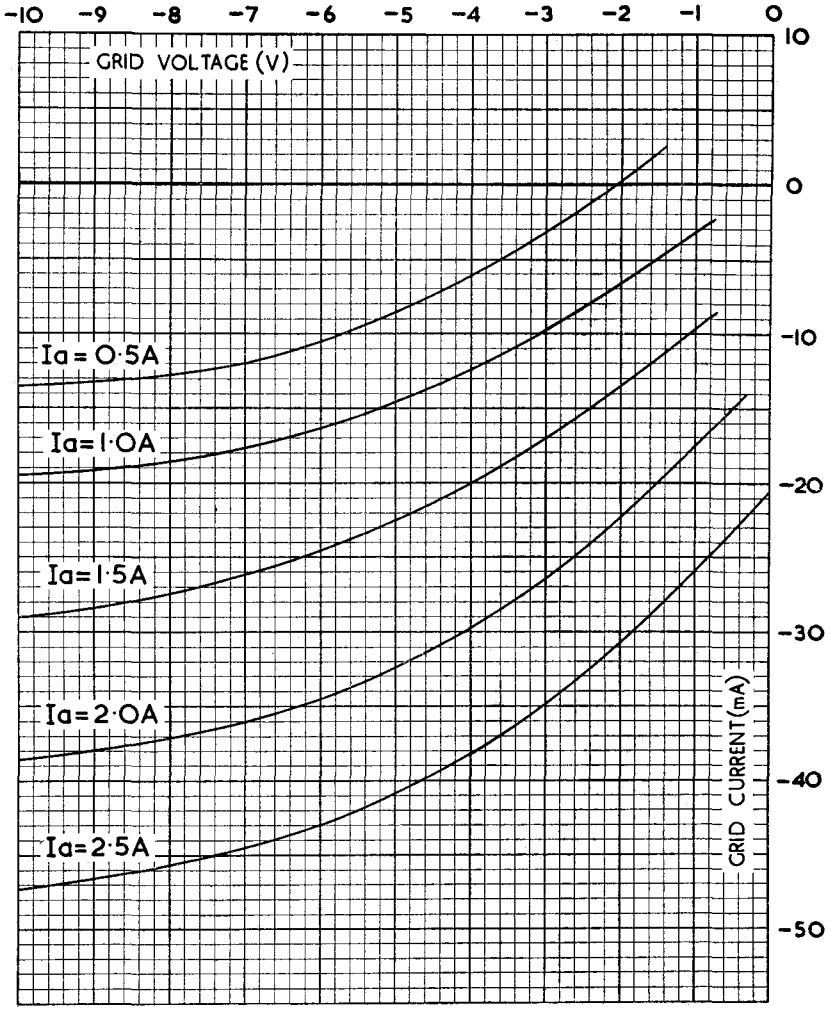
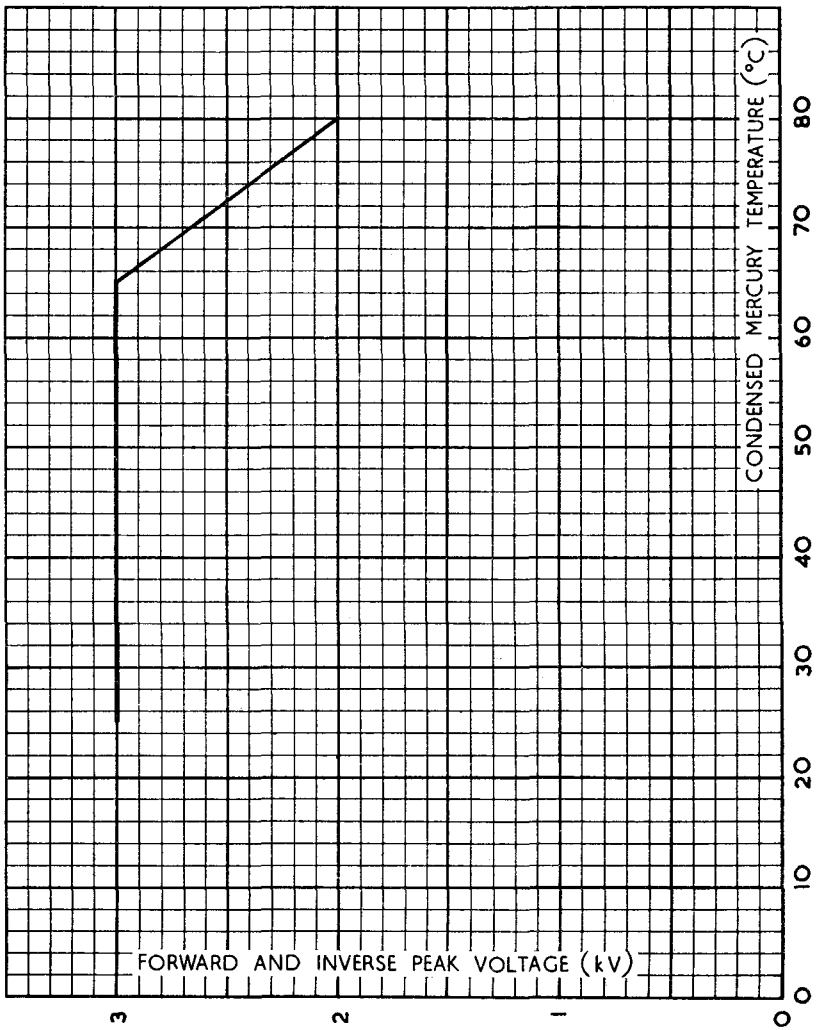
CHARACTERISTIC CURVES : I_g/V_g



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



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