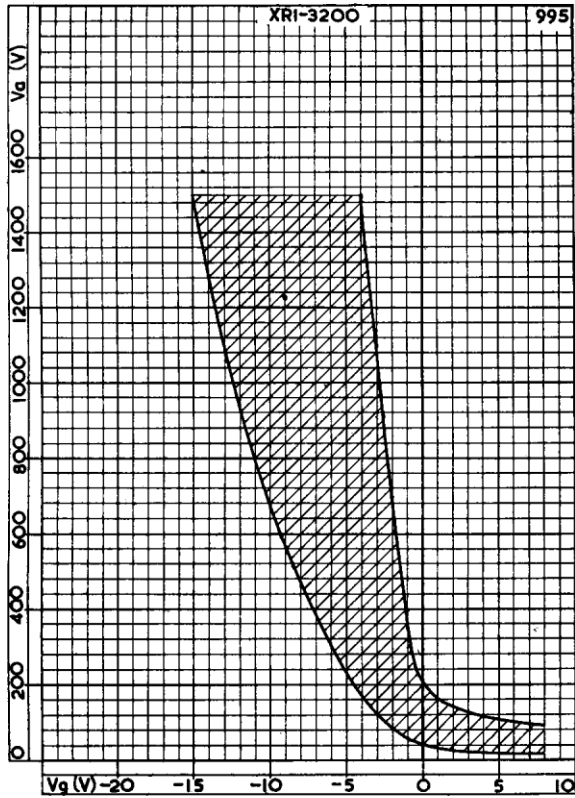


TRIODE THYRATRON

Triode, inert gas-filled thyatron with negative control characteristic. Primarily designed for motor control applications.

XRI-3200

(5544)



CONTROL CHARACTERISTIC



XRI-3200

(5544)

TRIODE THYRATRON

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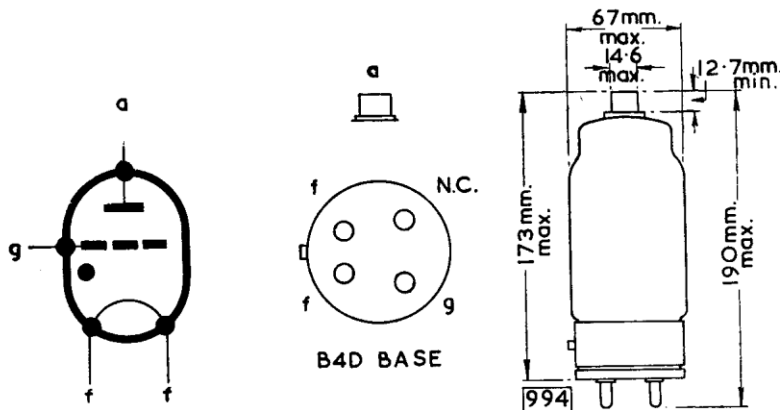
Mechanical

Type of cooling
Mounting position

Convection
Any position between horizontal
and vertical with base downwards

Max. net weight

{ 11 oz.
300 g



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XRI-3200

(5544)

This data sheet should be read in conjunction with "DEFINITIONS AND OPERATIONAL RECOMMENDATIONS—THYRATRONS" preceding this section of the Handbook.

LIMITING VALUES (absolute ratings, not design centre)

It is important that these limits are never exceeded and such variations as mains fluctuations, component tolerances and switching surges must be taken into consideration in arriving at actual valve operating conditions.

Max. peak anode voltage		
Inverse	1.5	kV
Forward	1.5	kV
Max. cathode current		
Peak	40	A
Average (Max. averaging time 15 secs)	3.2	A
Surge (Fault protection max. duration 0.1 secs)	560	A
Max. negative control-grid voltage		
Before conduction	250	V
During conduction	10	V
Max. average positive control-grid current for anode voltage more positive than -10V (averaging time 1 cycle)	200	mA
Max. peak positive control-grid current during the time that the anode voltage is more positive than -10V	2.5	A
Max. peak positive control-grid current during the time that the anode voltage is more negative than -10V	25	mA
Max. control-grid resistor (Recommended min. control-grid resistor 500 Ω)	100	k Ω
Filament voltage limits	2.37 to 2.63	V
Min. valve heating time	60	s
Max. commutation factor	130	
Ambient temperature limits	-55 to +70	$^{\circ}\text{C}$

CHARACTERISTICS

Electrical

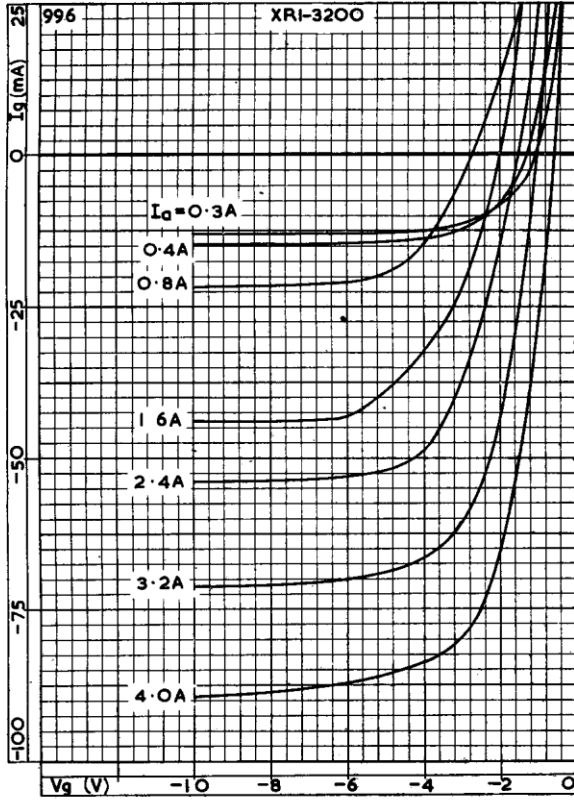
Filament voltage	2.5	V
Filament current at 2.5V		
Average	12	A
Maximum	13.5	A
Anode to control-grid capacitance	0.8	$\mu\mu\text{F}$
Control-grid to cathode capacitance	45	$\mu\mu\text{F}$
Deionisation time (approx.)		
(a) $V_g = -250\text{V}$	40	μs
(b) $V_g = -12\text{V}$	400	μs
Ionisation time (approx.)	10	μs
Anode voltage drop (approx.)	16	V
Critical grid current at $V_a = 1.5\text{kV}$	< 20	μA

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(5544)

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GRID ION CURRENT CHARACTERISTICS

