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DATA FOR E.I.A. REGISTRATION

MULLARD LIMITED,
Mullard House,
Torrington Place,
LONDON.W.C.1.
England.

THREE ELECTRODE THYRATRON XR1-3200A

The XR1-3200A is a three electrode inert gas-filled thyratron with a negative control characteristic. This tube is designed primarily for motor control applications.

MAXIMUM RATINGS

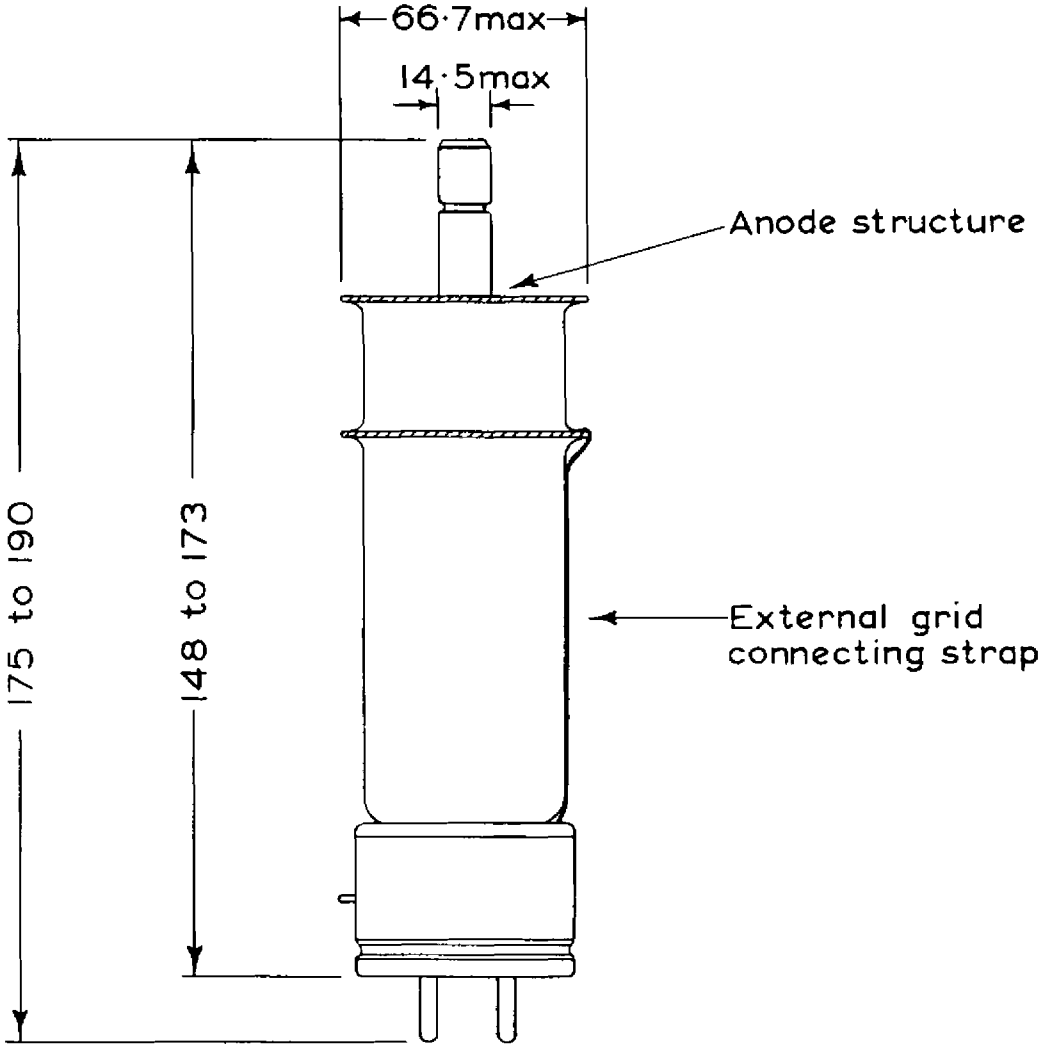
Maximum Peak Anode Voltage		
Inverse	1500	volts
Forward	1500	volts
Maximum Cathode Current		
Peak	40	amperes
Average	3.2	amperes
Surge (maximum duration 0.1 second)	560	amperes
Maximum Averaging Time	15	seconds
Maximum Negative Control Grid Voltage		
Before Conduction	250	volts
During Conduction	10	volts
Maximum Positive Control Grid Current (during the time that the anode voltage is more positive than -10 volts)		
Peak	2.5	amperes
Average (Averaging Time One Cycle)	0.20	ampere
Maximum Positive Control Grid Current (during the time that the anode voltage is more negative than -10 volts)		
Peak	25	milliamperes
Maximum Control Grid Resistor	100,000	ohms
Maximum Commutation Factor	130	
Ambient Temperature Limits	-55 to +70	°C

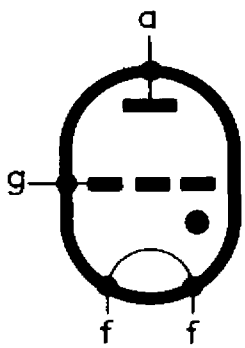
GENERAL

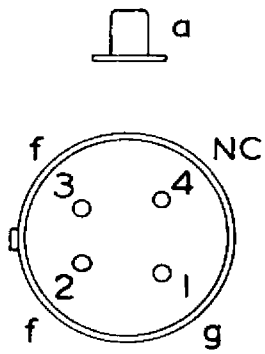
	Minimum	Bogey	Maximum	
Electrical Data				
Filament Voltage	2.37	2.5	2.63	volts
Filament Current at 2.5 volts		12	13.5	amperes
Cathode Heating Time	60.0			seconds
Anode to Control Grid Capacitance		7.5		μμf
Control Grid to Cathode Capacitance		5.0		μμf
Deionisation Time				
Grid Voltage = -250 volts		40 approx.		μseconds
Grid Voltage = -12 volts		400 approx.		μseconds
Ionisation Time		10 approx.		μseconds
Anode Voltage Drop		16 approx.		volts
Critical Control Grid Current at Anode Voltage = 1500 Volts		<20		μamperes
Mechanical Data				
*Mounting Position		Any between horizontal and vertical with base down		
**Cooling		Convection		
Maximum Net Weight		10.6		ounces

*Care should be taken to avoid damage to or contact with the external grid connecting strap.

**The anode structure must be left free to ensure adequate cooling by free convection.





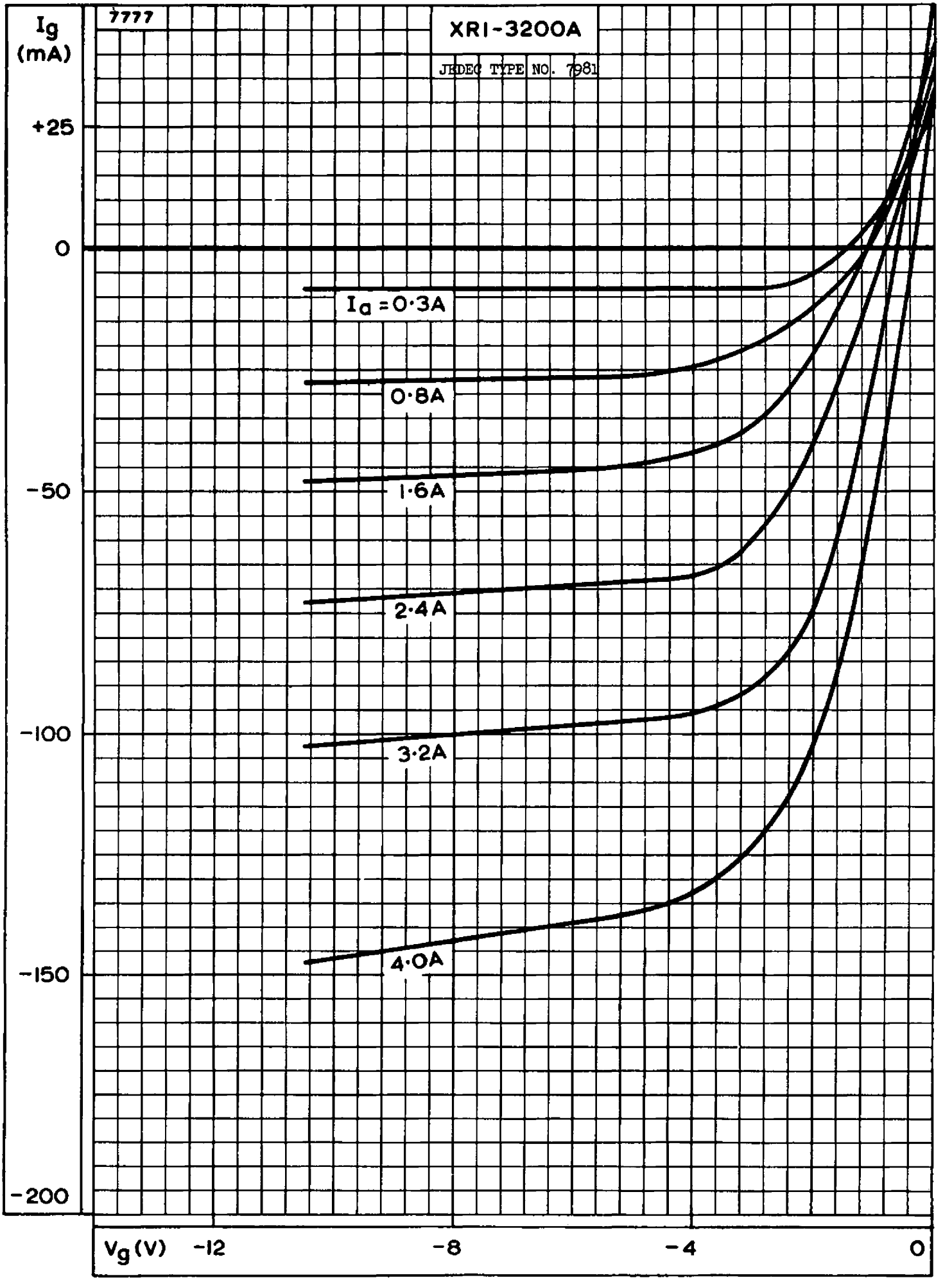


B4D Base

All dimensions in mm

The anode structure must be left free to ensure adequate cooling by free convection.

Care should be taken to avoid damage to or contact with the external grid connecting strap.


7777
XR1-3200A
JEDEC TYPE NO. 7981
Ig (mA)
+25
0
-50
-100
-150
-200
Ia = 0·3A
0·8A
1·6A
2·4A
3·2A
4·0A
Vg (V)
-12
-8
-4
0