



MERCURY VAPOUR  
THYRATRON

Service Type CV2957

To be read in conjunction with the Rectifier and Thyatron Preamble.

**ABRIDGED DATA**

Mercury vapour thyatron for industrial control applications

Peak forward anode voltage . . . . .	2.5	kV max
Peak inverse anode voltage . . . . .	5.0	kV max
Peak anode current . . . . .	2.0	A max
Mean anode current . . . . .	0.5	A max

**GENERAL**

**Electrical**

Filament . . . . .		oxide coated
Filament voltage . . . . .	2.5	V
Filament current . . . . .	5.0	A
Filament pre-heating time (minimum) . . . . .	10	s
Inter-electrode capacitances:		
grid to anode . . . . .	4.0	pF
grid to filament . . . . .	8.0	pF

**Mechanical**

Overall length . . . . .	6.250 inches (158.8mm) max
Overall diameter . . . . .	2.156 inches (54.76mm) max
Net weight . . . . .	3 ounces (85g) approx
Mounting position . . . . .	vertical, base down
Base . . . . .	B.S.448-B4G
Top cap . . . . .	B.S.448-CT3

**Cooling**

natural

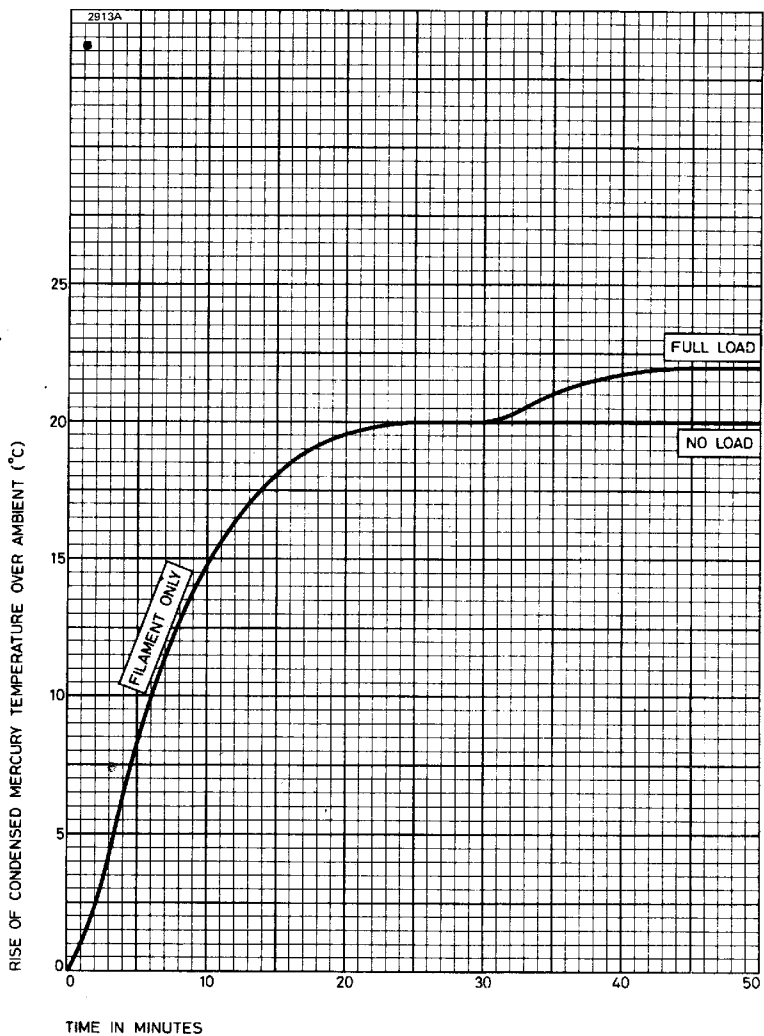
**CHARACTERISTICS**

Voltage drop . . . . .	16	V approx
Ionization time . . . . .	10	µs approx
Recovery time . . . . .	1.0	ms approx
Condensed mercury temperature rise:		
at no load . . . . .	20	°C approx
at full load . . . . .	22	°C approx

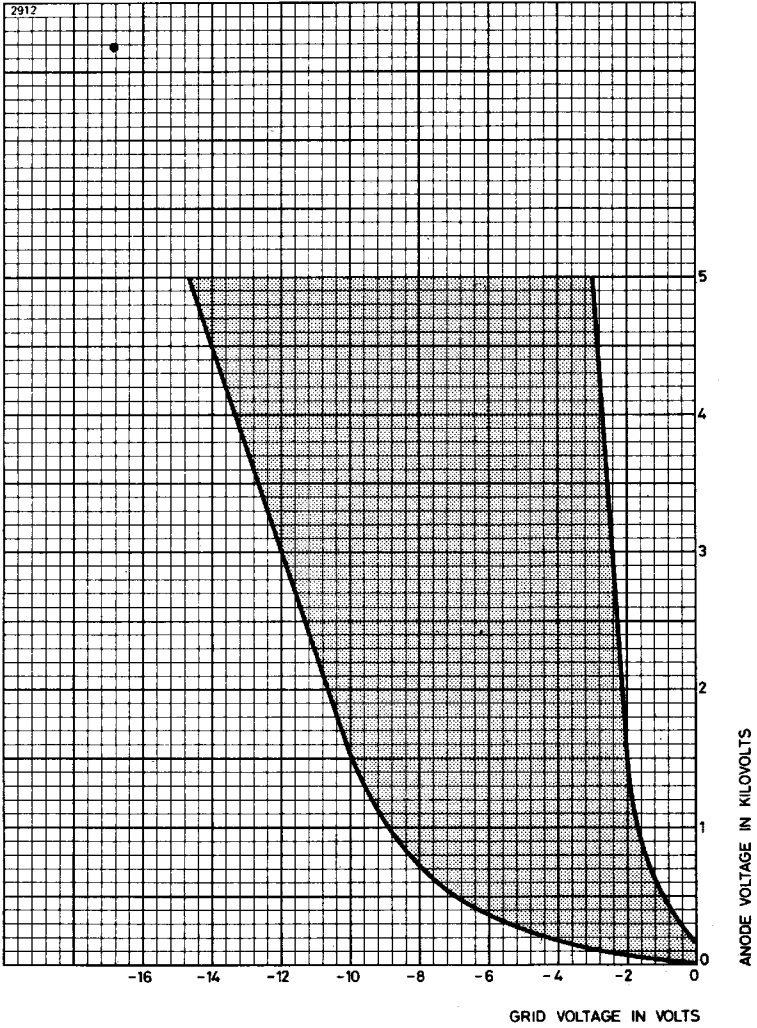
## MAXIMUM AND MINIMUM RATINGS (Absolute values)

	Min	Max	
Peak forward anode voltage . . . . .	—	2.5	kV
Peak inverse anode voltage . . . . .	—	5.0	kV
Peak anode current . . . . .	—	2.0	A
Mean anode current (averaging time 15s max) . . . . .	—	0.5	A
Fault anode current (peak) . . . . .	—	40	A
Duration of fault current . . . . .	—	0.1	s
Condensed mercury temperature . . . . .	40	80	°C
Negative grid voltage:			
before conduction . . . . .	—	500	V
during conduction . . . . .	—	10	V
Mean grid current . . . . .	—	50	mA
Recommended grid resistor . . . . .	10	100	kΩ
Filament pre-heating time . . . . .	10	—	s
Power supply frequency . . . . .	—	150	Hz

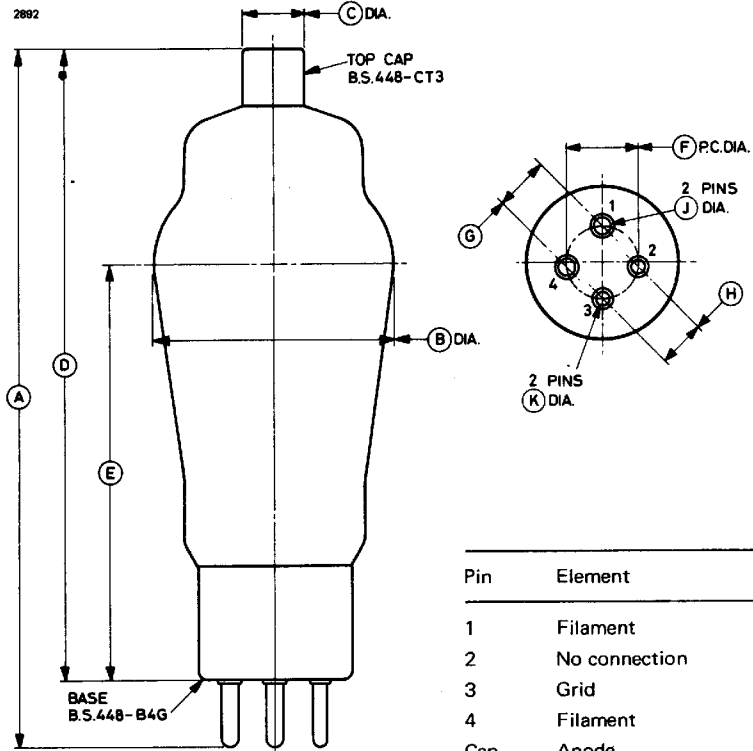
# TYPICAL HEATING CHARACTERISTIC



# CONTROL CHARACTERISTIC



**OUTLINE (All dimensions without limits are nominal)**



Pin	Element
1	Filament
2	No connection
3	Grid
4	Filament
Cap	Anode

Ref	Inches	Millimetres	Ref	Inches	Millimetres
A	6.250 max	158.8 max	F	0.640	16.26
B	2.125 ± 0.031	53.98 ± 0.79	G	0.468	11.89
C	0.566	14.38	H	0.437	11.10
D	5.625 ± 0.250	142.9 ± 6.4	J	0.156	3.96
E	3.625	92.08	K	0.125	3.18

Millimetre dimensions have been derived from inches.