XL601

GLOW MODULATOR

INTRODUCTION

The XL601 is a cold cathode glow modulator tube with an international octal base. The hollow cathode contained in the tube provides a high ionization density and forms a compact light source with an equivalent luminous intensity of 0.27 candela at 30mA cathode current.

A particular feature of its characteristics is the substantially linear relationship between the light output and the cathode current. This, together with the high frequency and directional characteristics of the tube, makes the XL601 suitable for numerous industrial and communications applications, including facsimile equipments and photo-electric counters.

GENERAL DATA

Characteristics

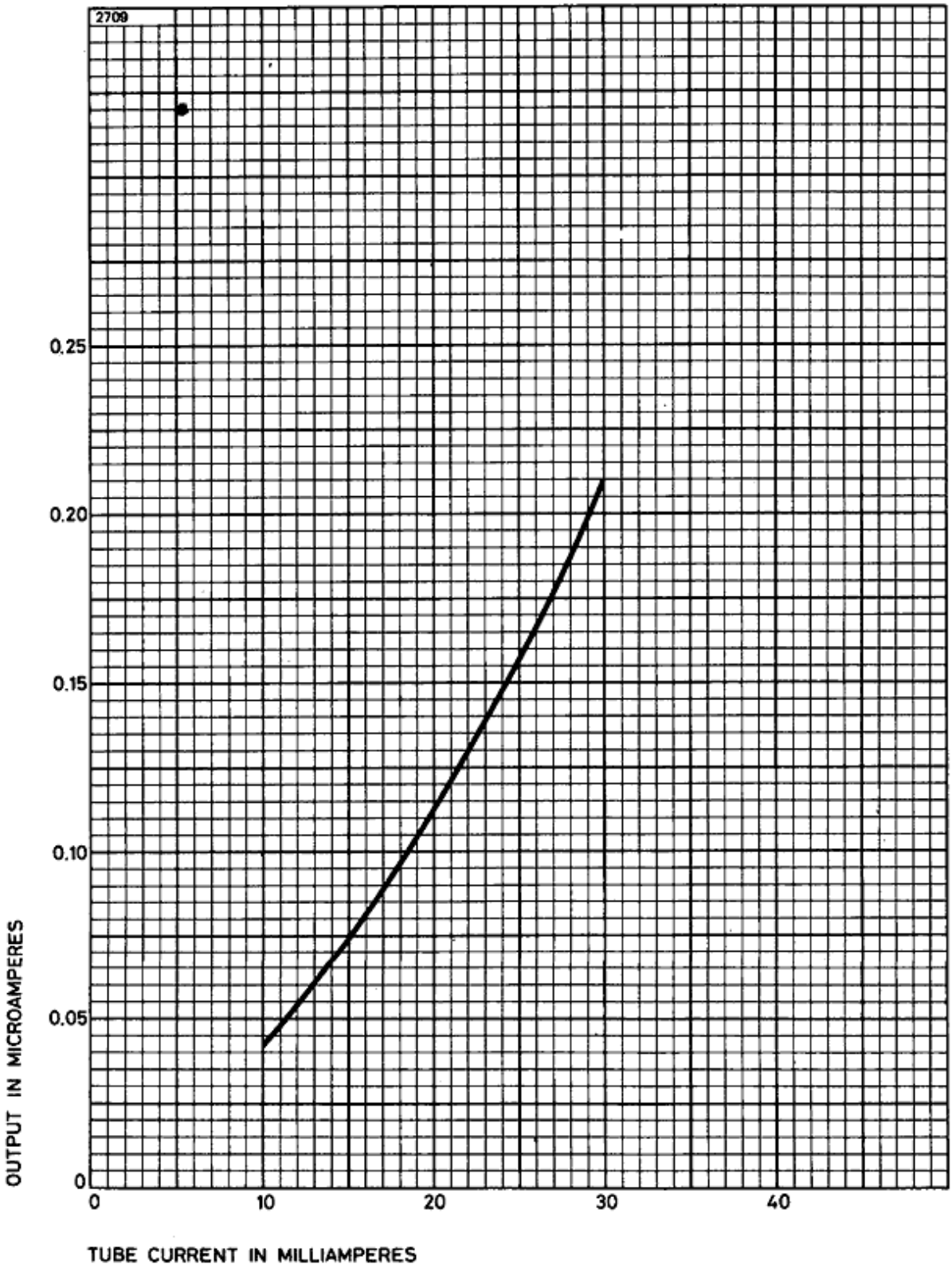
Maximum open circuit supply voltage	300	V
Maximum breakdown voltage	225	V
Maximum maintaining voltage (at 20mA d.c.)	150	V
Typical maintaining voltage (at 20mA d.c.)	120	V
Maximum average cathode current	30	mA
Minimum cathode current	0.25	mA
Maximum peak cathode current	45	mA
Modulating frequency range	up to 10^6	Hz
Equivalent luminous intensity, blue-violet (at 30mA d.c.)*	0.27	cd
Equivalent luminance, blue-violet (at 30mA d.c.)*	8.52×10^5	cd/m^2
	550	cd/in^2
Colour of discharge	mainly blue-violet	
Average life (at 15mA d.c.)	100	hours

Mechanical

Overall length	3.060 inches (77.72mm) max
Overall diameter	1.253 inches (31.83mm) max
Light source (end viewing):	
diameter	0.025 inch (0.635mm) nom
distance from end of bulb	0.312 inch (7.93mm) max
Mounting position	any
Base	2 pin international octal

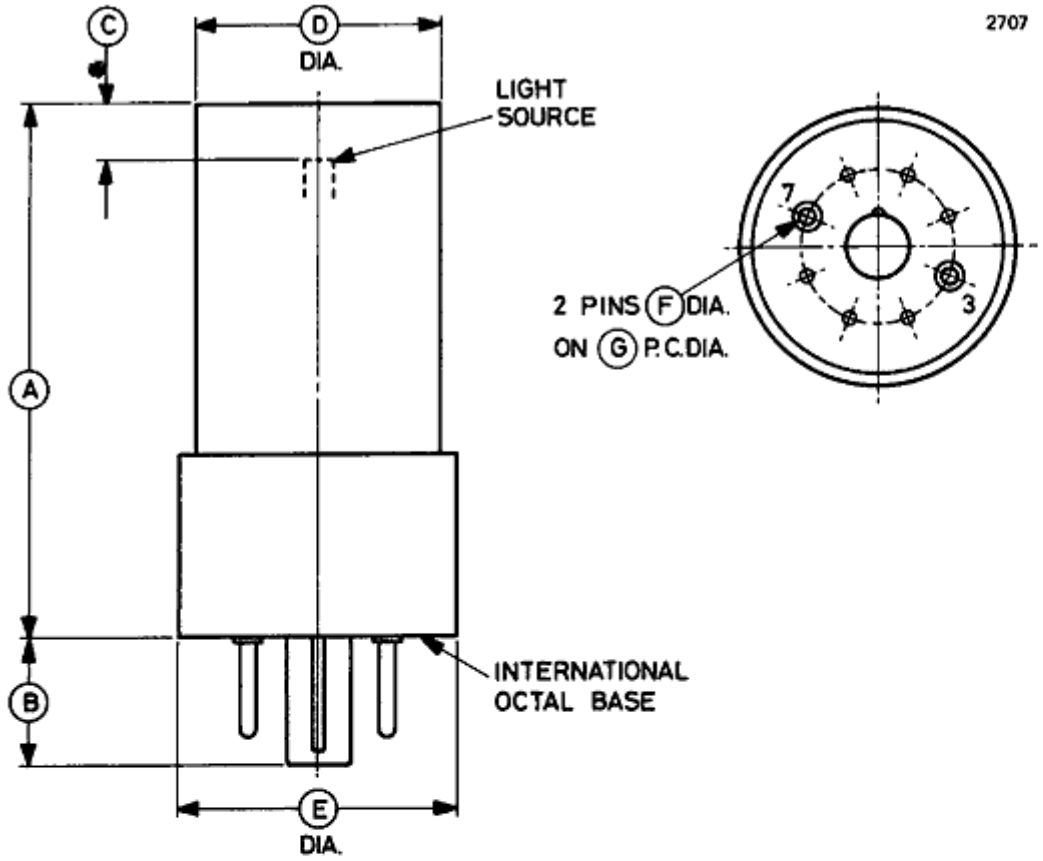
* The amount of blue-violet light emitted is equivalent to that of a black body with luminous intensity 0.27cd and colour temperature 2870° K.

TYPICAL LIGHT OUTPUT CHARACTERISTIC



The light output of the glow modulator is expressed as the current through a type 929 photo tube with a Wratten C5 filter between the tubes, the glass envelopes of which are 0.562 inch (14.3mm) apart.

OUTLINE (All dimensions without limits are nominal)



Ref	Inches	Millimetres
A	2.375 ± 0.125	60.33 ± 3.18
B	0.560	14.22
C	0.250 ± 0.063	6.35 ± 1.60
D	1.142 max	29.01 max
E	1.253 max	31.83 max
F	0.093	2.36
G	0.687	17.45

Millimetre dimensions have been derived from inches.

Pin	Element
1	Omitted
2	Omitted
3	Cathode
4	Omitted
5	Omitted
6	Omitted
7	Anode
8	Omitted