



27C12
PHOTO-CELL
TENTATIVE

GENERAL

The 27C12 is a vacuum Photo-Cell with a caesium-oxygen-silver cathode surface, having maximum sensitivity in the near infra-red region of the spectrum. It is highly sensitive to incandescent light sources and may be used for machine control, counting applications, etc.

RATING—Absolute values

Maximum working voltage	250	V
Maximum mean cathode current (max averaging time 30 sec)	$I_k(av)_{max}$	10 μA
Maximum ambient temperature	$T_{amb(max)}$	100 $^{\circ}C$

INTER-ELECTRODE CAPACITANCE

Anode/Cathode	ca-k	1.1	pF
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CHARACTERISTICS

Average overall sensitivity (approx)		20*	$\mu A/L$
Maximum dark current	$I_{dark(max)}$	0.05†	μA
Minimum insulation resistance between electrodes		2000	M Ω
Recommended working voltage		50	V

* Measured at 0.1 lumens with a lamp colour temperature of 2700°K and a cell series resistance of 1.0M Ω . Anode voltage=50V.

† Measured at 100V and 1.0M Ω series resistance, zero illumination.

DIMENSIONS

Maximum overall length	54.5	mm
Maximum seated height	47.5	mm
Light centre from seat	19.5	mm
Maximum diameter	19	mm
Minimum cathode width	11.5	mm
Minimum cathode length	22	
Minimum projected cathode area	2.6	sq.cm

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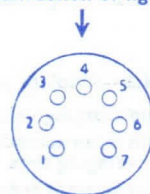
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MOUNTING POSITION—Unrestricted

BASE—B7G

Direction of light



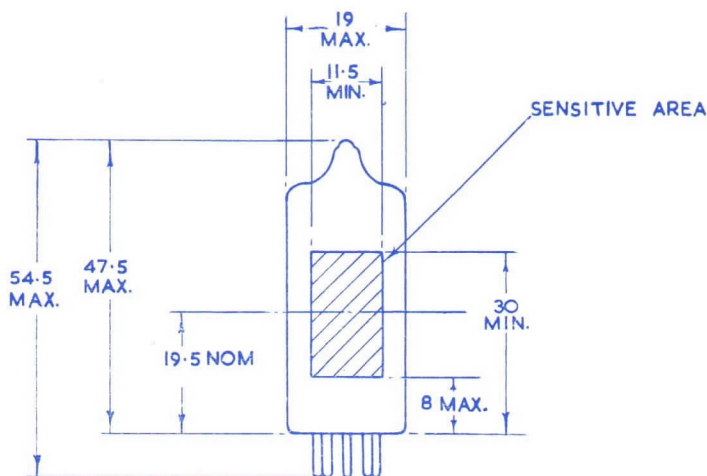
Viewed from free end of pins

CONNECTIONS †

Pin 1	Cathode	k
Pin 2	Cathode	k
Pin 3	Anode	a
Pin 4	Anode	a
Pin 5	Anode	a
Pin 6	Cathode	k
Pin 7	Cathode	k

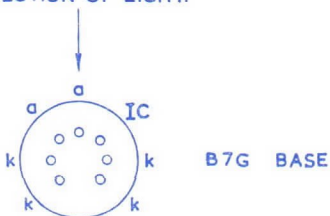
† The cathode connection should be made to pins 1, 2, 6 and 7 connected together and the anode connection to pins 3, 4 and 5 connected together.

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All dimensions in mm.

DIRECTION OF LIGHT.



VIEW OF FREE END.

