

B76D01 Photomultiplier Tube

The B76D01 is a 3" diameter 10-stage end-on photomultiplier with extended sensitivity in blue, green and red regions. Designed for scintillation counting and low light applications.

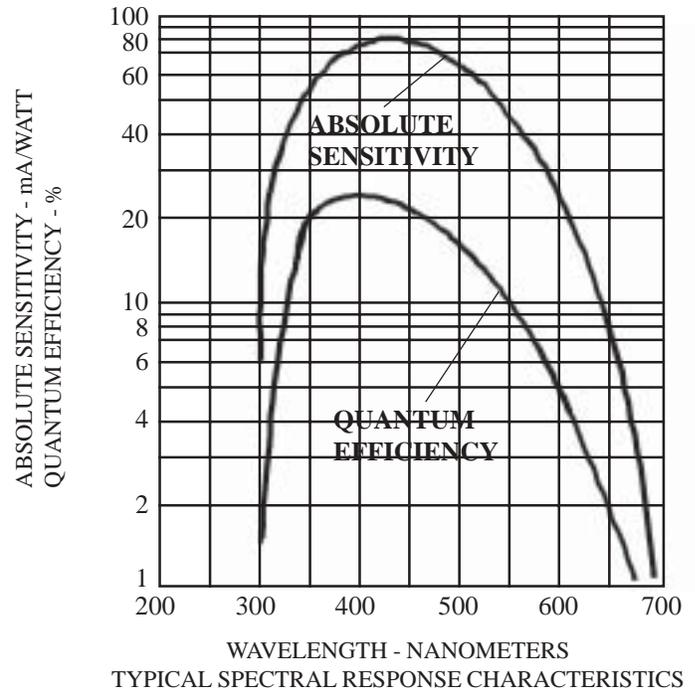
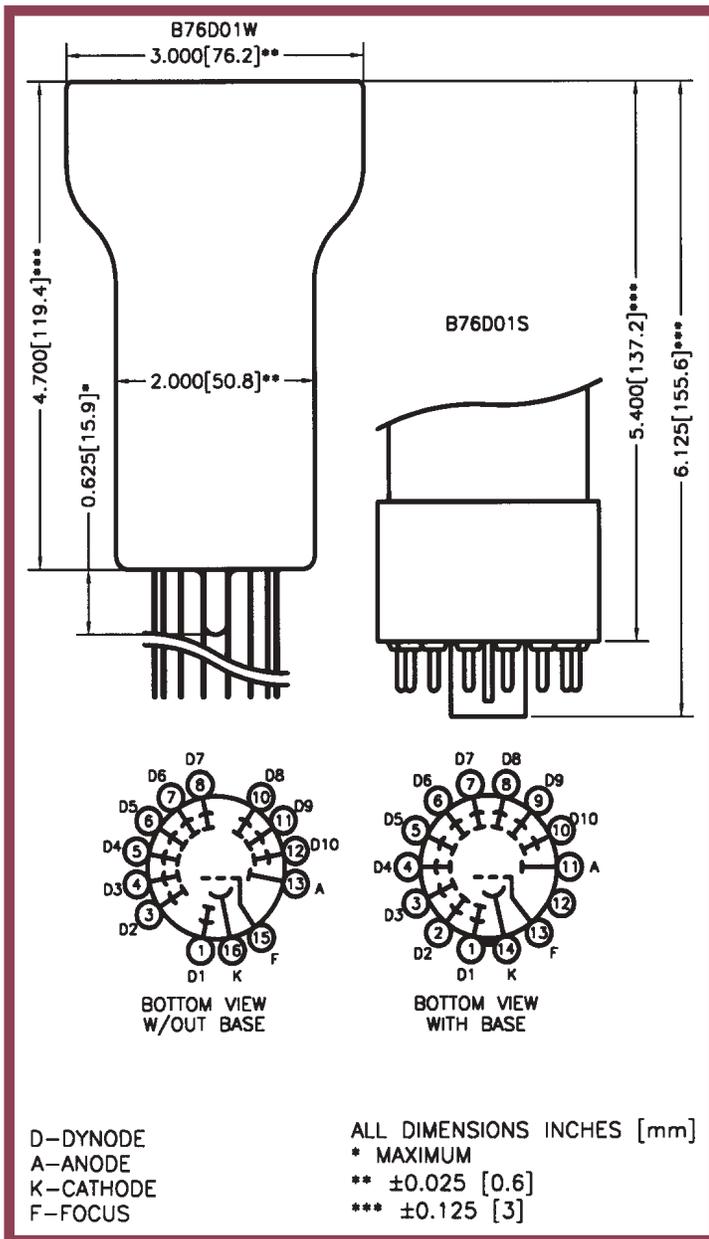


FIGURE 1

Photocathode: Semitransparent Extended Bialkali

Spectral Response	See Figure 1
Wavelength of maximum response	400 ± 50 nm
Minimum diameter	70 mm
Window shape	plano-plano, circular
Window index of refraction @ 436 nm	1.523
Dynodes	BeCu, Box & Grid
Capacitance (anode to all electrodes)	9.5 pF
Operating position	Any
Weight	206 grams

Rev. 01/04

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ELECTRICAL OPERATING RATINGS

	MINIMUM	TYPICAL	MAXIMUM ⁽⁵⁾	UNITS
Cathode to dynode No. 1 voltage	40	150	300	VDC
Cathode to anode voltage		1100	1500	VDC
Voltage between consecutive dynodes			100	VDC
Ambient storage temperature			60	°C
Anode current, average over 30 sec.			1.0	μA
Cathode current				μA
Cathode luminous sensitivity: ⁽¹⁾				
With 2854° K tungsten source	80	120	180	μA/lm
With blue light source ⁽²⁾	5	12	15	μA/lm(B)
With red light source ⁽³⁾	5	10	15	μA/lm(R)
Quantum efficiency @ 420 nm		25		%
Cathode radiant sensitivity @ 420 nm		97		mA/W
@ 540 nm		45		
@ 600 nm		25		
@ 680 nm		4		
Anode luminous sensitivity 1100 VDC : With 2854° K tungsten source of 1×10^{-3} lm	3	20	50	A/lm
Current amplification @ 1100 VDC		1×10^6		
Anode dark current ⁽⁴⁾ @ 22° C	1	10	20	nA

- (1) With 150 VDC between cathode and all other elements connected as anode.
- (2) This measurement is made with a blue filter (Corning CS-5-58, 1/2 stock thickness) interposed between a calibrated 2854° K tungsten light source and the photocathode. The (B) appearing in the units signifies that the measurement is made with the blue filter in place.
- (3) This measurement is made with a red filter (Corning CS-2-62) interposed between a calibrated 2854° K tungsten light source and the photocathode. The (R) appearing in the units signifies that the measurement is made with the red filter in place.
- (4) Measured at the supply voltage which gives an anode sensitivity of 20 A/lm.
- (5) Recommended operating maximums.

NOTE: When ordering one of the following basing options must be added, i.e. B76D01S

BASING OPTIONS: L - Long Base S - Short Base W - Wire Leads (No Base)

Voltage dividers available made to customer specifications.

