

B76B03 Photomultiplier Tube

The B76B03 is a 3" diameter 10-stage High Gain end-on photomultiplier tube. Designed for scintillation counting and other applications where high quantum efficiency, low dark current, good collection efficiency, gain stability and high count rate are paramount importance.

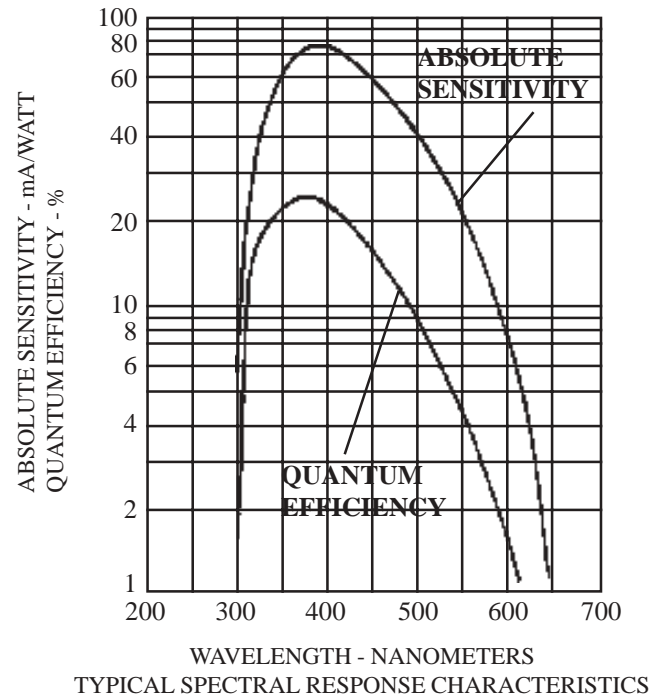
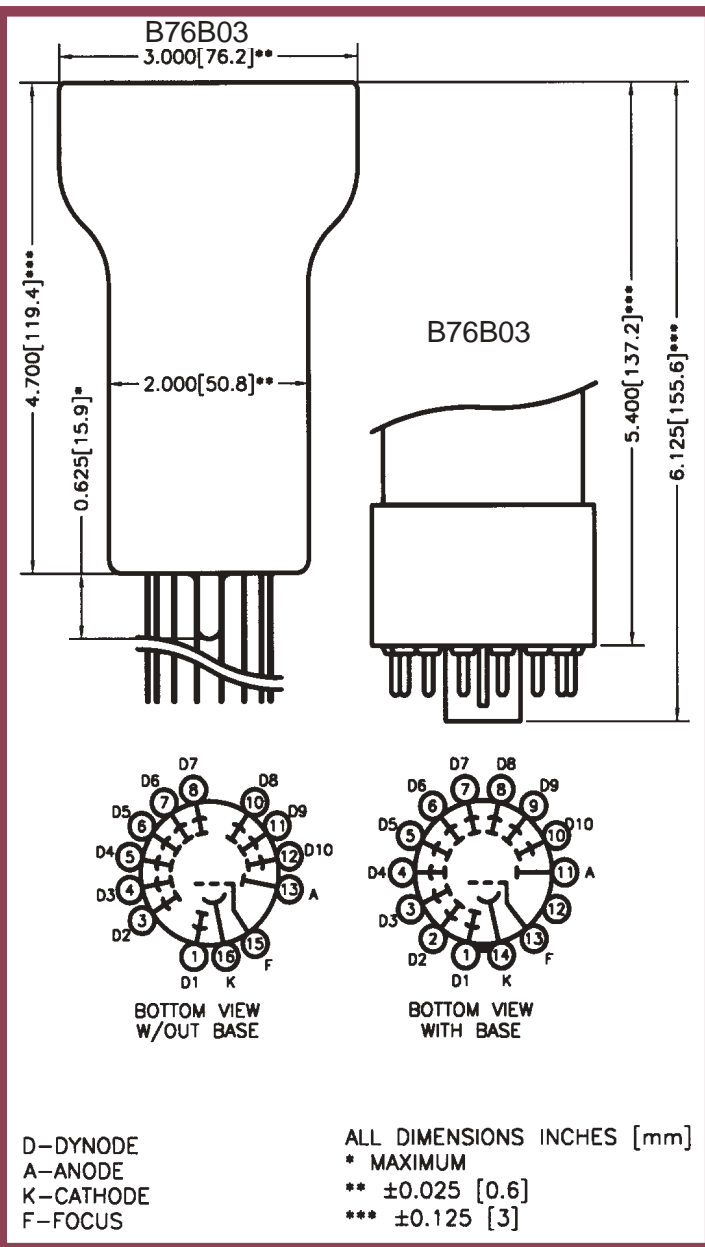


FIGURE 1

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	SbCs Coated, Box & Grid
Capacitance (anode to all electrodes)	9.5 pF
Operating position	Any
Weight	206 grams

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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		800	1300	VDC
Voltage between consecutive dynodes			200	VDC
Ambient storage temperature		23	60	°C
Anode current, average over 30 sec.		10		μA
Cathode current		0.2		μA
Cathode luminous sensitivity: ⁽¹⁾ With 2854° K tungsten source With blue light source ⁽²⁾		120 12		μA/lm μA/lm(B)
Quantum efficiency @ 420 nm		25		%
Cathode radiant sensitivity @ 420 nm		80		mA/W
Anode luminous sensitivity 800 VDC : With 2854° K tungsten source of 1 x 10 ⁻³ lm	3	20	50	A/lm
Current amplification @ 800 VDC		1 X 10 ⁶		
Anode dark current ³ @ 22° C		< 1.0		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) Recommended operating maximums.

NOTE: When ordering one of the following basing options must be added, i.e. B76B031S

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

Voltage dividers available made to customer specifications.



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