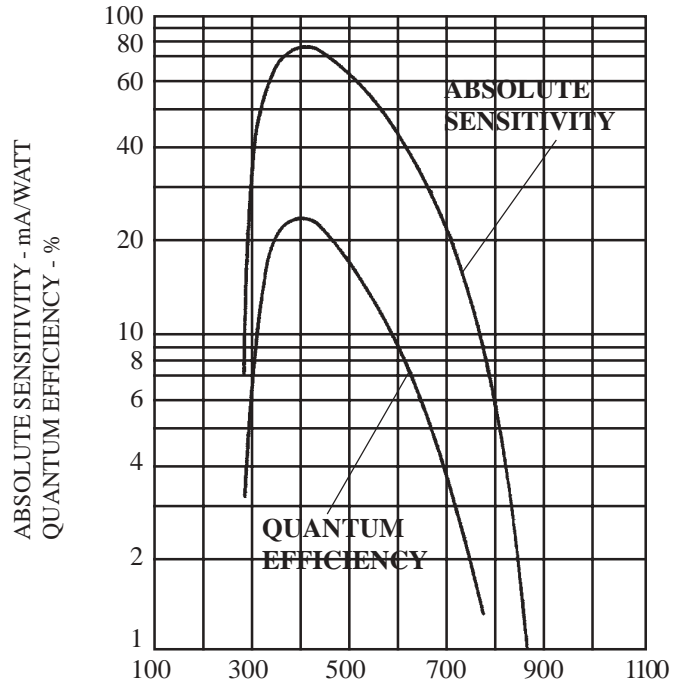
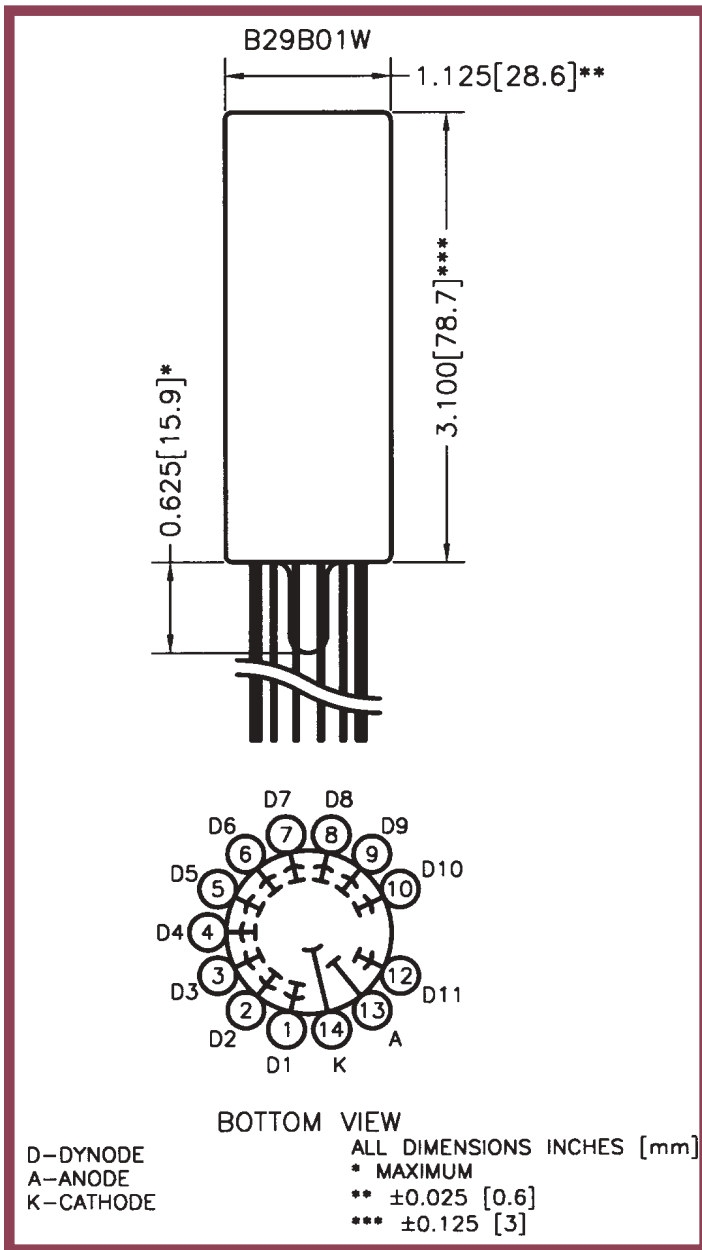


B29C01W Photomultiplier Tube

The B29C01W is a 1-1/8" diameter, 11-stage end-on photomultiplier designed for scintillation counting and other applications where high quantum efficiency, low dark current, good collection efficiency, and gain stability are of paramount importance.



TYPICAL SPECTRAL RESPONSE CHARACTERISTICS
FIGURE 1

Photocathode: Semitransparent Bialkali

Spectral Response	See Figure 1
Wavelength of maximum response	400 ± 50 nm
Minimum diameter	24 mm
Window shape	plano-plano, circular
Window index of refraction @ 436 nm	1.523
Dynodes	CsSb coated, Box & Grid
Capacitance (anode to all electrodes)	4 pF
Operating position	Any
Weight	50 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		1000	1600	VDC
Voltage between consecutive dynodes			250	VDC
Ambient storage temperature		23	60	°C
Anode current, average over 30 sec.		0.5	200	μA
Cathode current		1	5	μA
Cathode luminous sensitivity: ⁽¹⁾				
With 2854° K tungsten source	120	180	300	μA/lm
With blue light source ⁽²⁾	5	9	12	μA/lm(B)
With red light source ⁽³⁾	30	80	100	μA/lm(R)
Quantum efficiency @ 420 nm		20		%
Cathode radiant sensitivity @ 420 nm @ 680 nm		80 20		mA/W
Anode luminous sensitivity 1100 VDC: With 2854° K tungsten source of 1 x 10 ⁻³ lm	2.50	10.0		A/lm
With blue light source ⁽²⁾	0.17	0.3		A/lm(B)
With red light source ⁽³⁾	0.90	2.2		A/lm(R)
Current amplification @ 1100 VDC		1.0 X 10 ⁵		
Anode dark current ⁽⁴⁾ @ 22° C		2	5.0	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) Measured at the supply voltage which gives an anode sensitivity of 20 A/lm.

(4) Recommended operating maximums.

BASING OPTIONS:

W - Wire Leads

Voltage dividers available made to customer specifications.



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