

**For Single Photon Counting, Dark Counts 5cps Typ. at 25°C
13mm (1/2 Inch) Diameter, 9-stage, Bialkali Photocathode, Side-On Type
185 to 650nm Spectral Response, General Purpose Variant of R3810**

GENERAL

Parameter		Description/Value	Unit
Spectral Response		185 to 650	nm
Wavelength of Maximum Response		340	nm
Photocathode	Material	Sb-Cs	—
	Minimum Effective Area	3 × 4	mm
Window Material		UV glass	—
Dynode	Structure	Circular-cage	—
	Number of Stages	9	—
Direct Interelectrode Capacitances	Anode to Last Dynode	1.7	pF
	Anode to All Other Electrodes	2.0	pF
Base		11-pin glass base	—
Weight		3	g
Suitable Socket		E678-11H	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1250	Vdc
	Between Anode and Last Dynode	150	
Average Anode Current		0.01	mA
Ambient Temperature		-80 to +50	°C

CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	20	40	—	μA/lm
	Blue (CS No. 5-58 filter)	—	5.0	—	μA/lm-b
Anode Sensitivity	Luminous (2856K)	50	300	—	A/lm
Gain		—	7.5×10^6	—	—
Dark Counts *		—	5	10	cps
Anode Dark Current (after 30min. storage in darkness)		—	0.1	5	nA
Time Response	Anode Pulse Rise Time	—	1.4	—	ns
	Electron Transit Time	—	15	—	

* Measured at the voltage that is set at the gain to be 1×10^6 .

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrode	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	P
Ratio	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage: 1000Vdc, K: Cathode, Dy: Dynode, P: Anode

PHOTOMULTIPLIER TUBE R3810P

Figure 1: Typical Spectral Response

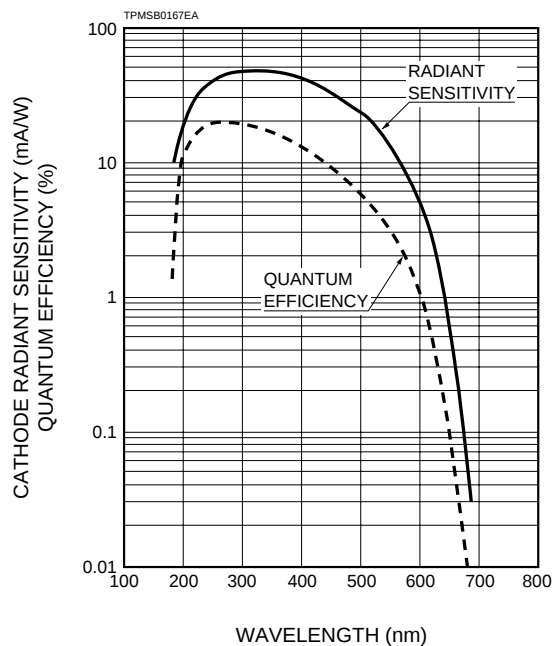


Figure 2: Gain and Anode Dark Current

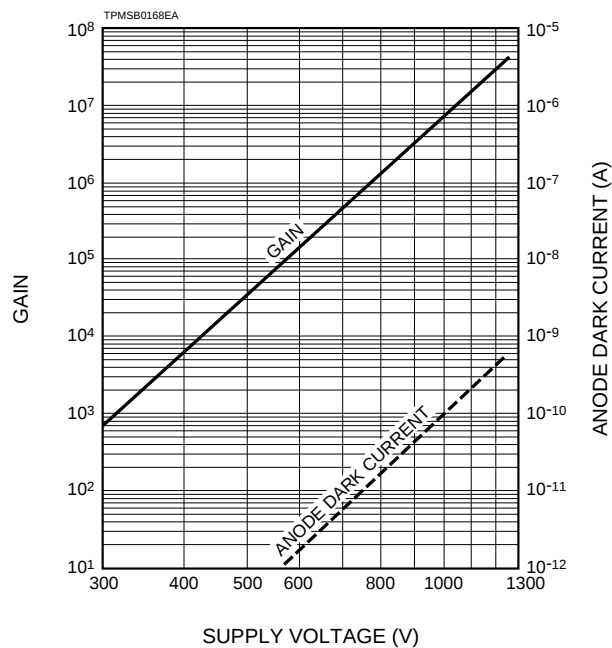


Figure 3: Typical Single Photoelectron Pulse Height Distribution

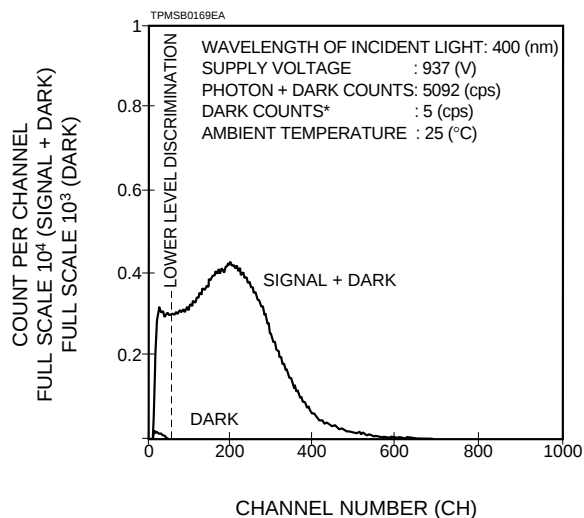
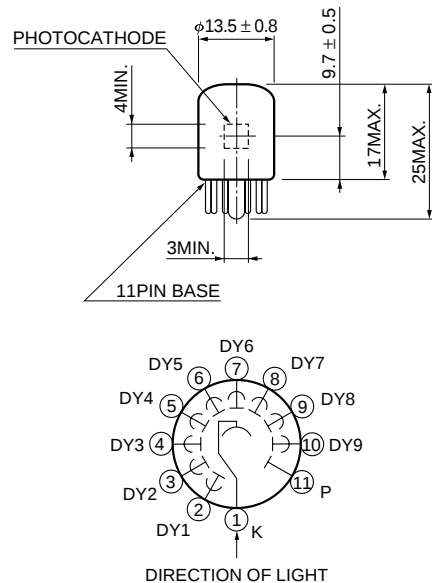


Figure 4: Dimensional Outline and Basing Diagram (Unit: mm)



* Measured at the voltage that is set at the gain to be 1×10^6 .

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