

Metal Package PMT

Photon Counting Head H11123



The H11123 is a photon counting head device consisting of a 28-mm (1-1/8") diameter head-on photomultiplier tube, a high-speed photon counting circuit, and a high-voltage power supply circuit. The high voltage power supply for photomultiplier tube and the discrimination level are preset to optimum values, allowing photon counting measurement by just connecting a +5 V supply. The H11123 can operate at high count rate. The effective photosensitive area is as large as 25 mm in diameter, so the incident light can be collected very efficiently.

Product Variations

Type No.	Spectral Response	Features
H11123	300 nm to 650 nm	High detection efficiency

This product can't be used at vacuum environment or reduced pressure environment.

Specifications

(at +25 °C)

Parameter			Value	Unit
Input Voltage			+4.75 to +5.25	V
Max. Input Voltage			+6	V
Max. Input Current			70	mA
Effective Area			φ25	mm
Peak Sensitivity Wavelength			420	nm
Count Sensitivity	Typ.	300 nm	1.9×10^5	s ⁻¹ ·pw ⁻¹
		400 nm	4.4×10^5	
		500 nm	3.6×10^5	
		600 nm	1.1×10^5	
Count Linearity *1			5.0×10^6	s ⁻¹
Dark Count *2		Typ.	100	s ⁻¹
		Max.	200	
Pulse-Pair Resolution		Typ.	20	ns
Output Pulse Width		Typ.	10	ns
Output Pulse Height *3		Min.	2.0	V
		Typ.	2.2	
Recommended Load Resistance			50	Ω
Signal Output Logic			Positive logic	—
Operating Ambient Temperature			+5 to +40	°C
Storage Temperature *4			-20 to +50	°C
Weight			260	g

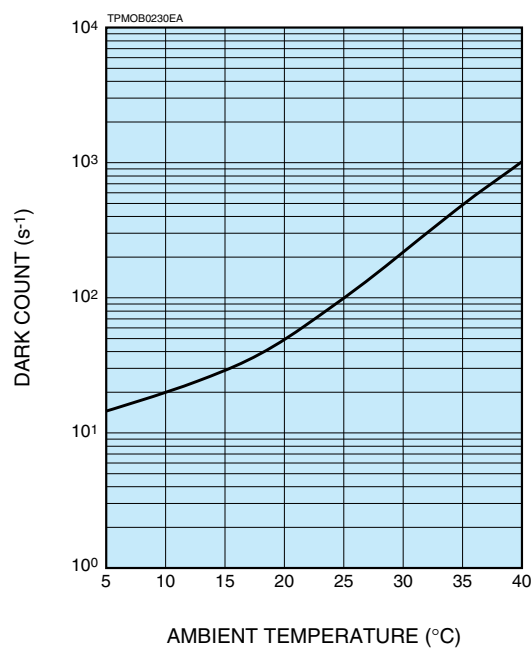
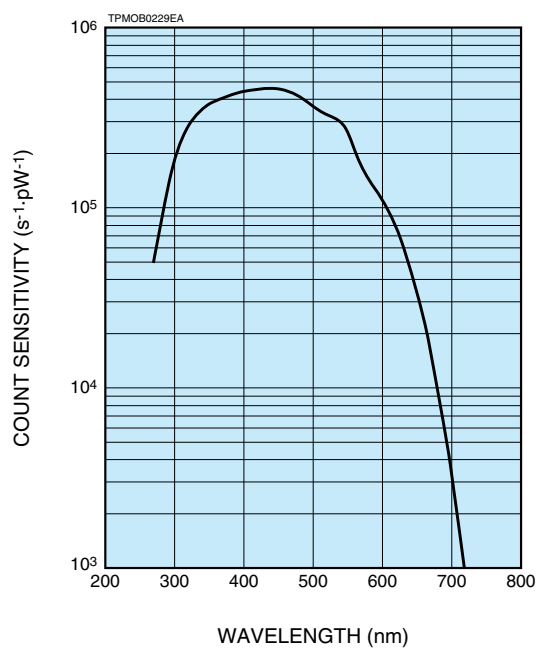
*1: Random pulse, at 10 % count loss

*2: After 30 minutes storage in darkness

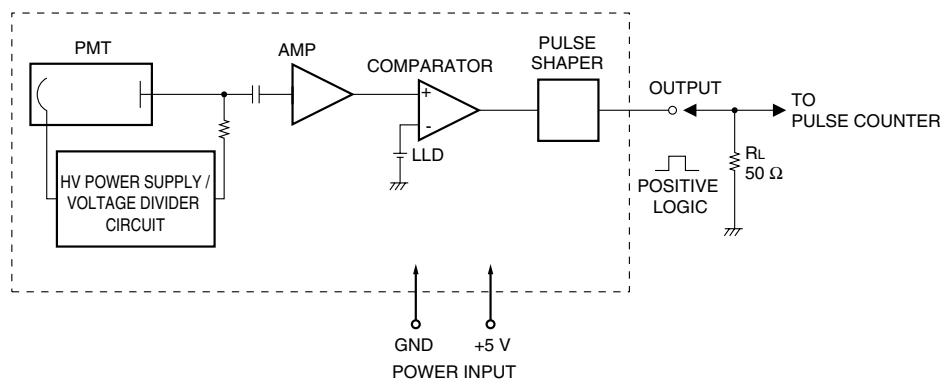
*3: With input voltage +5 V, Load resistance 50 Ω

*4: No condensation

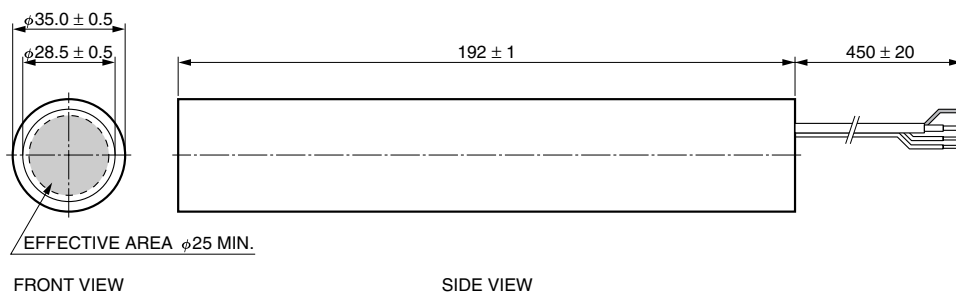
Characteristic (Count sensitivity)



Block Diagram



Dimensional Outlines (Unit: mm)



LOW VOLTAGE INPUT (+5 V): AWG26 (RED)
 GND : AWG26 (BLACK)
 SIGNAL OUTPUT : RG-174/U

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