

# 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	$1.9 \times 10^5$	s <sup>-1</sup> ·pw <sup>-1</sup>
		400 nm	$4.4 \times 10^5$	
		500 nm	$3.6 \times 10^5$	
		600 nm	$1.1 \times 10^5$	
Count Linearity *1		$5.0 \times 10^6$	s <sup>-1</sup>	
Dark Count *2	Typ.	100	s <sup>-1</sup>	
	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

