

Photon Detector *Preliminary* XP85022

PLANACON

25µm MCP-PMT
32x32 Anode
53 mm Square

Applications

- ✓ Specialized Medical Imaging
- ✓ Ring Imaging Cherenkov
- ✓ High Energy Physics Detectors



Description

Window material	UV-Glass, Schott 8337B or equivalent
Photocathode	Bialkali
Multiplier structure	MCP chevron (2), 25 µm pore, 40:1 L:D ratio
Anode structure	32x32 array, 1.1 / 1.6 mm (size / pitch)
Active area	53x53 mm
Open-area-ratio	80%

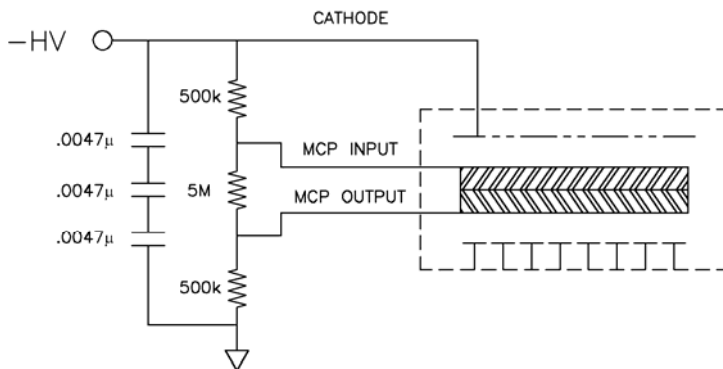
Photocathode characteristics

	Min	Typ	Max	Unit
Spectral range:	200		650	nm
Maximum sensitivity at		400		nm
Sensitivity:				
Luminous *	50	60		µA/lm
Blue *	7.5	8.5		µA/lmF
Radiant, at peak		76		mA/W
Quantum Efficiency		24		%

Characteristics

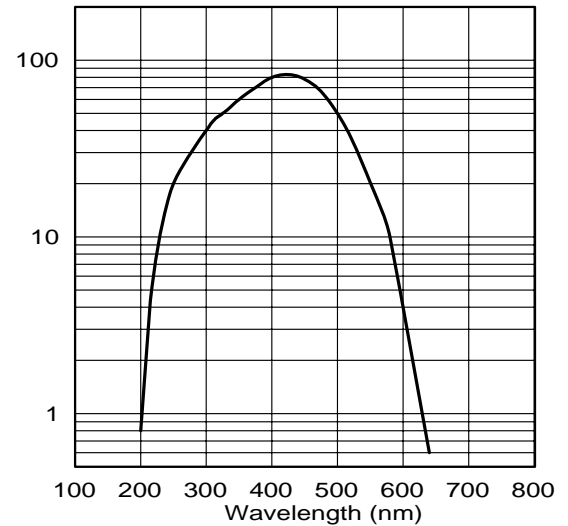
	Min	Typ	Max	Unit
Gain *	1×10^5	6×10^5		-
Total anode dark current @ 10^5 gain *		1	5	nA
Rise time		0.6		ns
Pulse width		1.8		ns
Anode uniformity		1 : 1.5	1 : 2.5	

Recommended Voltage Divider (not included)

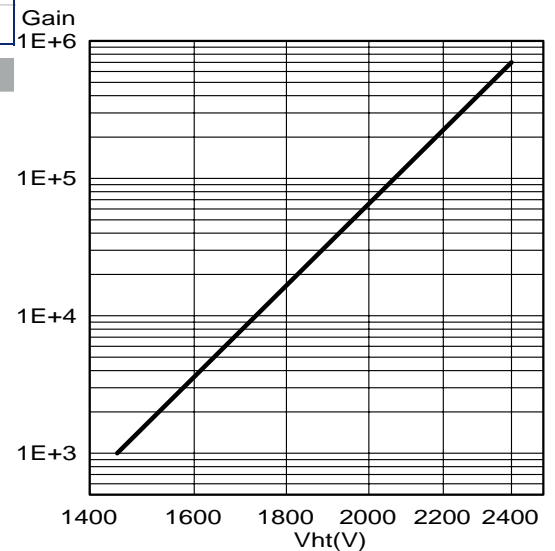


CAUTION: UNUSED ANODES MUST BE CONNECTED TO GROUND FOR SAFETY AND PROPER TUBE OPERATION

Sk (mA/W) **Typical spectral response**



Typical gain curve



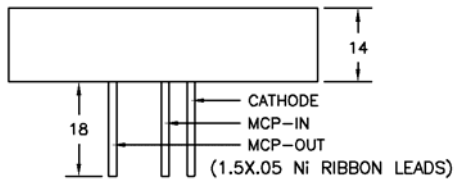
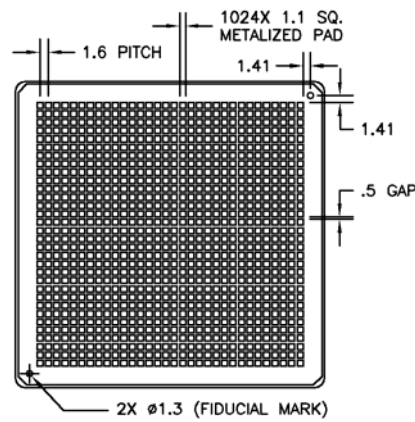
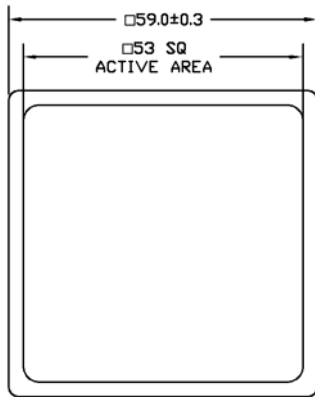
* Characteristic measured and recorded on the test ticket of each tube

Photon Detector

XP85022

Outline (dimensions in mm)

XP85022



Mass: 80g

Limiting values	Min	Max	Unit
Cathode to MCP _{in} voltage		500	V
MCP _{in} to MCP _{out} voltage		2000	V
MCP _{out} to Anode voltage		500	V
Average total anode current		3	μA
Ambient temperature:			
Operating Temperature	0	+50	°C
Storage Temperature (for extended periods)	-15	+50	°C

Warning: Continuous operation at maximum ratings may result in shorter product life or unreliable performance.

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