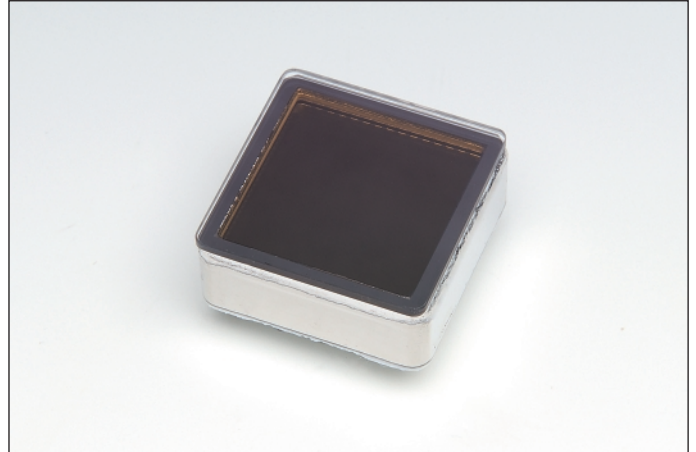


FEATURES

- 27.6 mm square shape
- 16 matrix multianode
- Small dead space
- Fast time response
- For high magnetic field

APPLICATIONS

- High energy physics
- Multichannel time resolved fluorescence detection measurement
- Light detection and ranging



SPECIFICATIONS

GENERAL

Parameter		Ratings	Unit
Spectral response		160 to 850	nm
Wavelength of maximum response		350 to 400	nm
Input window	Material	Synthetic silica	—
	Thickness	1.5	mm
Photocathode	Material	Multialkali	—
	Minimum effective area	23 × 23	mm
Microchannel plate (MCP)	Construction	2 stages	—
	Channel diameter	10	μm
Number of anode pixels		16 (4 × 4 matrix)	—
Anode pixel size		5.28 × 5.28	mm

RATINGS

Parameter		Maximum ratings	Unit
Supply voltage	Photocathode – Anodes	2000 to 3600 ^(A)	V
Operating ambient temperature ^(B)		-30 to +45	°C
Storage temperature ^(B)		-30 to +50	°C

CHARACTERISTICS

Parameter		Min.	Typ.	Max.	Unit
Photocathode	Luminous sensitivity	—	170	—	μA/lm
	Quantum efficiency at peak response	17	24	—	%
MCP gain (at maximum supply voltage ^(C))		4 × 10 ⁵	1 × 10 ⁶	—	—
Dark current at maximum supply voltage (25 °C, all anodes)		—	3 × 10 ⁻⁸	1 × 10 ⁻⁶	A
Dark counts at maximum supply voltage (25 °C, all anodes)		—	5000	—	s ⁻¹
Time response	Rise time	—	180	—	ps
	I.R.F. (FWHM)	—	70	—	ps

^(A) The maximum supply voltage will be determined between 2000 V to 3600 V in order to satisfy the specification of MCP gain.

^(B) No condensation

^(C) The ratio of dividing resistors is 0.5: 2.5: 2.5: 2.5: 1.5

MICROCHANNEL PLATE PHOTOMULTIPLIER TUBE R10754-07-M16

Figure 1: I.R.F. (Instrument response function)

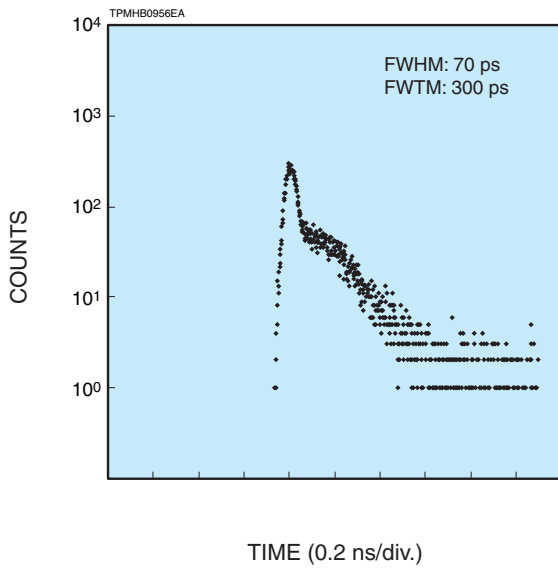


Figure 2: Output waveform

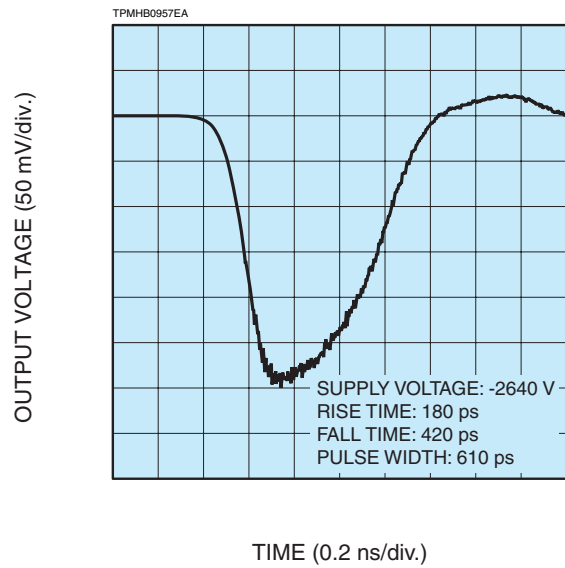
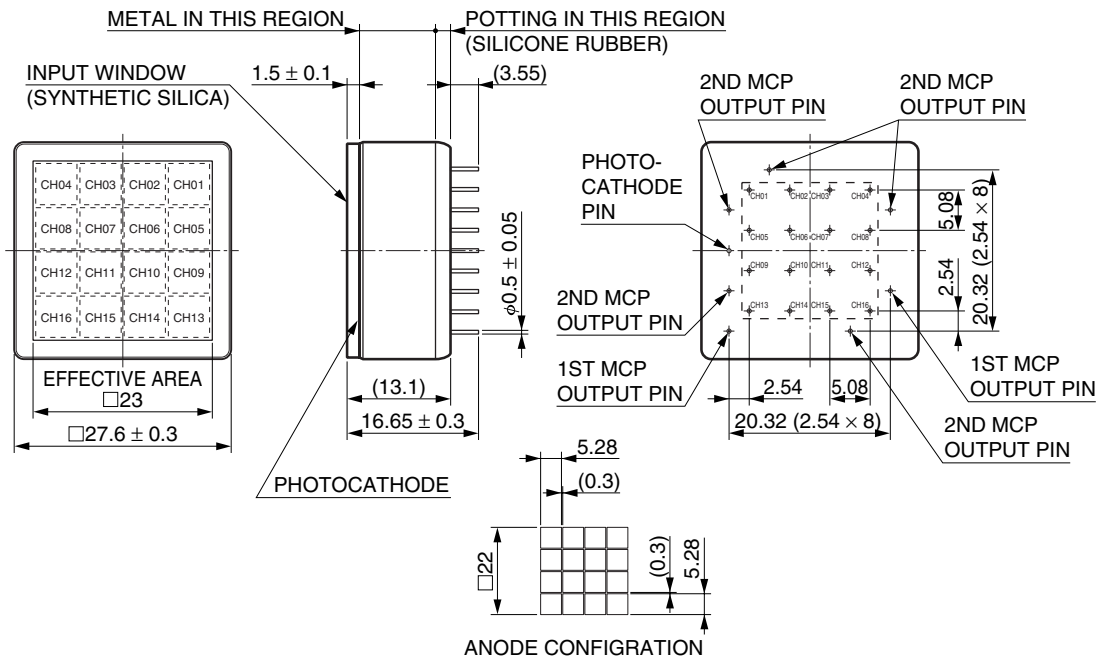


Figure 3: Dimensional outlines (Unit: mm)



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