

FEATURES

- 16 matrix multianode
- Small dead space
- Fast time response
- High magnetic field immunity
- Long life time

APPLICATIONS

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



SPECIFICATIONS

GENERAL

Parameter		Description / Value	Unit
Spectral response		160 to 850	nm
Wavelength of maximum response		380	nm
Window material		Synthetic silica	—
Photocathode	Material	Multialkali	—
	Minimum effective area	23 × 23	mm
Dynode	Dynode structure	2 stages Microchannel plate	—
	Channel diameter	10	μm
Number of anode pixels		16 (4 × 4 matrix)	—
Anode pixel size		5.28 × 5.28	mm
Operating ambient temperature [Ⓐ]		-30 to +45	°C
Storage temperature [Ⓐ]		-30 to +50	°C

MAXIMUM RATINGS (Absolute maximum values)

Parameter		Value	Unit
Supply voltage	Between anode and cathode	2700	V
Average anode current		2	μA

CHARACTERISTICS (at 25 °C, 2200 V)

Parameter		Min.	Typ.	Max.	Unit
Cathode sensitivity	Luminous (2856 K)	80	110	—	μA/lm
	Blue sensitivity index	—	7.5	—	—
Anode luminous sensitivity		22	110	—	A/lm
Gain		—	1 × 10 ⁶	—	—
Dark current (After 30 minutes storage in darkness)		—	5	30	nA
Time response	Rise time	—	195	—	ps
	Fall time	—	310	—	ps
	Width	—	400	—	ps
	T.T.S. (FWHM) [Ⓑ]	—	75	—	ps

[Ⓐ] No condensation

[Ⓑ] Transit-time spread (T.T.S.) is the fluctuation in transit time between individual pulse and specified as an FWHM (full width at half maximum) with the incident light having a single photoelectron state. This value includes the jitter of the electronics about 30 ps.

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrode	K	1st MCP-in	1st MCP-out	2nd MCP-in	2nd MCP-out	P
Distribution ratio	1	5	5	5	3	

Supply voltage: 2200 V, K: Cathode, P: Anode

MICROCHANNEL PLATE PHOTOMULTIPLIER TUBE R10754-07-M16

Figure 1: Typical spectral response

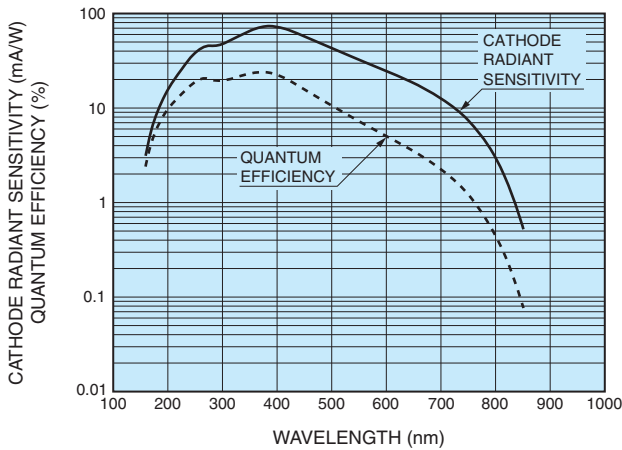


Figure 2: Typical gain

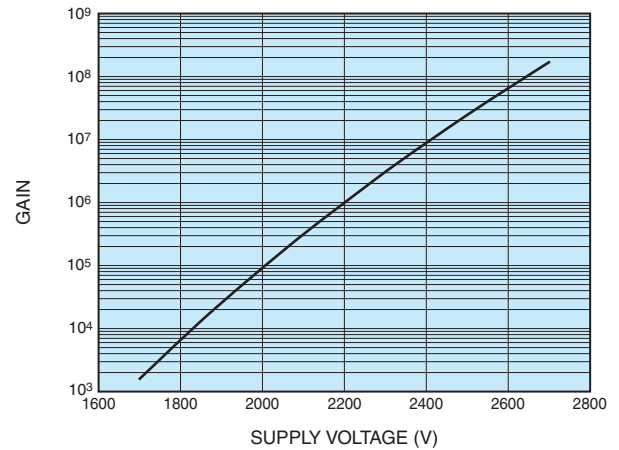


Figure 3: Typical output waveform

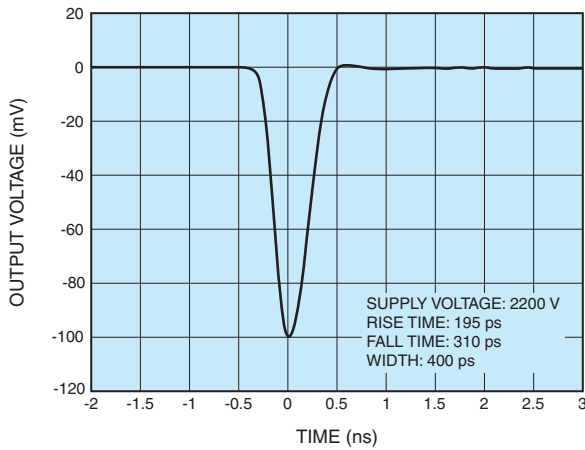


Figure 4: Typical transit time spread

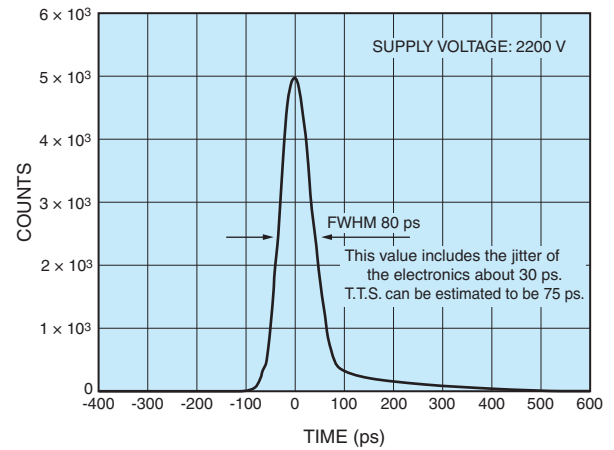
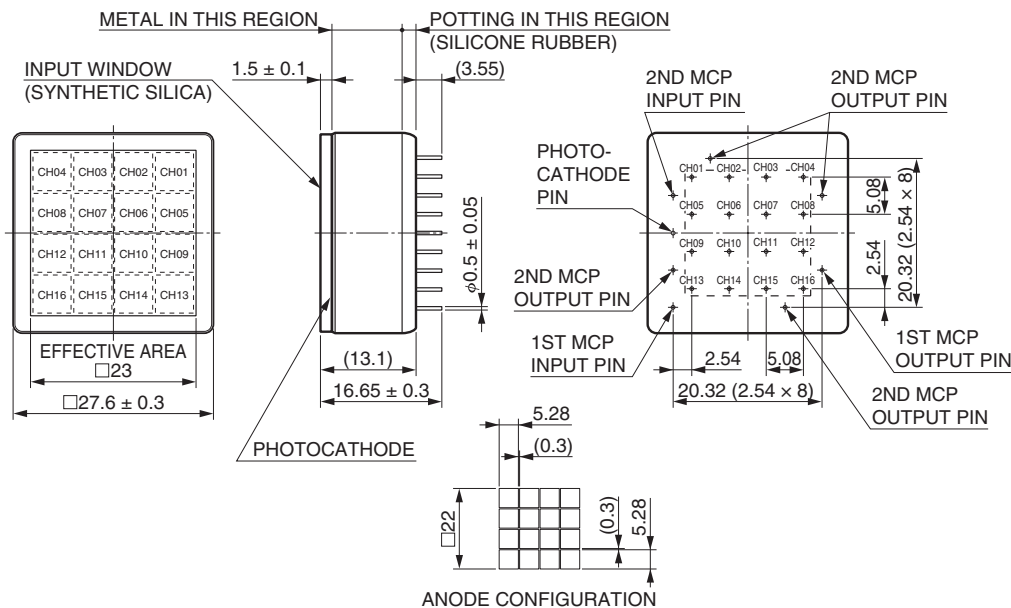


Figure 4: Dimensional outlines (Unit: mm)



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