

For Photon Counting Applications
19 mm (3/4 Inch) Diameter, Bialkali Photocathode
Borosilicate Glass Window, 10-stage, Head-On Type

GENERAL

Parameter		Description/Value	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Bialkali	—
	Minimum Effective Area	4	mm dia.
Window Material		Borosilicate glass	—
Dynode	Structure	Linear focused	—
	Number of Stages	10	—
Base		12-pin glass base	—
Suitable Socket		E678-12L (supplied)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1250	Vdc
	Between Anode and Last Dynode	250	Vdc
Average Anode Current		0.1	mA
Ambient Temperature		-80 to +50	°C

CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	50	70	—	μA/lm
	Radiant at 420nm	—	72	—	mA/W
	Blue (CS-5-58 filter)	—	9.0	—	μA/lm-b
Anode Sensitivity	Luminous (2856K)	—	350	—	A/lm
	Radiant at 420nm	—	3.6×10^5	—	A/W
Gain		—	5.0×10^6	—	—
Anode Dark Current (after 30min. storage in darkness)		—	0.5	5	nA
Anode Dark Counts		—	5	15	cps
Time Response	Anode Pulse Rise Time	—	1.7	—	ns
	Electron Transit Time	—	24	—	ns

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	2	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage: 1000Vdc, K: Cathode, Dy: Dynode, P: Anode

PHOTOMULTIPLIER TUBE R2295

Figure 1: Typical Spectral Response

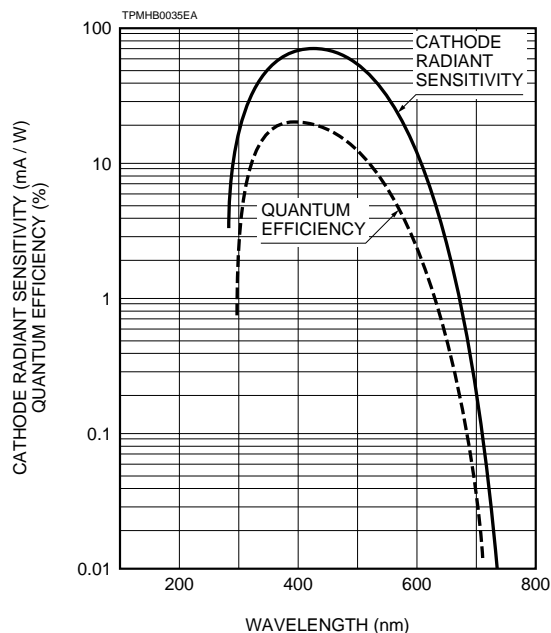


Figure 2: Typical Single Photoelectron Pulse Height Distribution

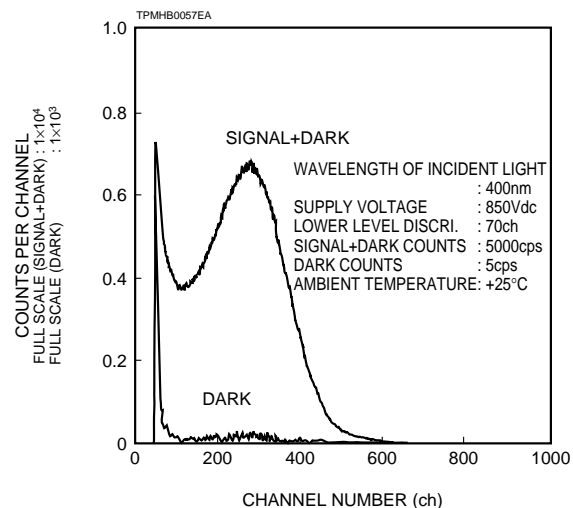
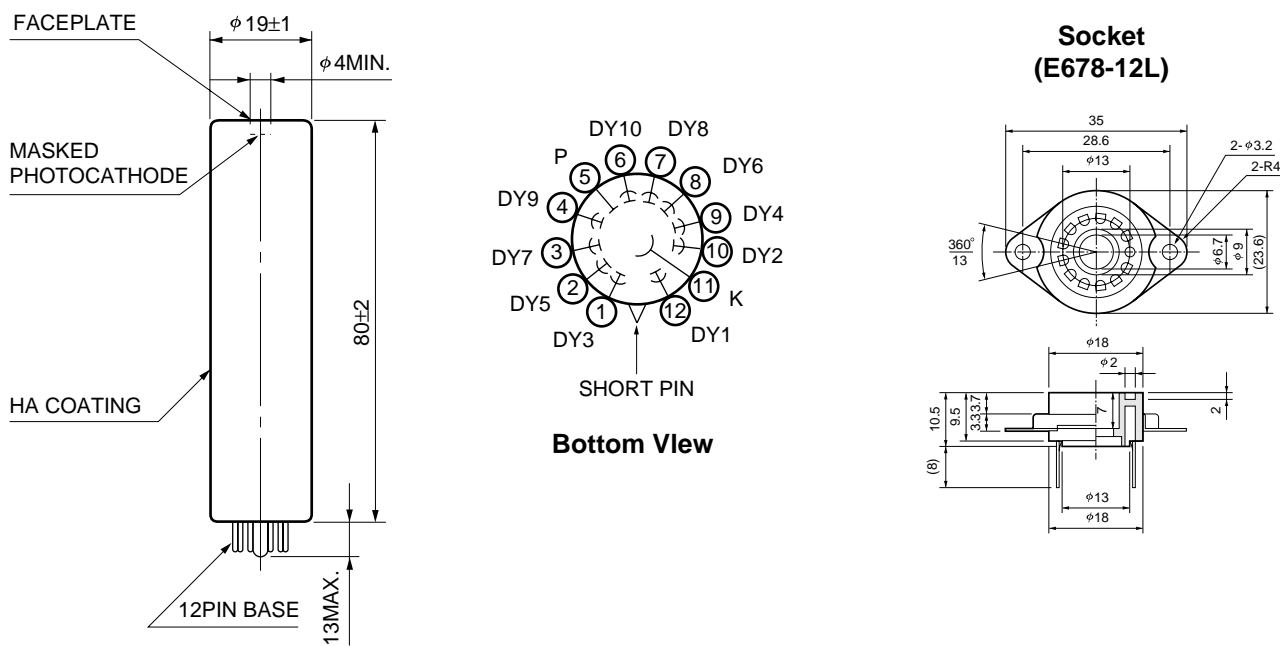


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



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HAMAMATSU

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