

**For Scintillation Counting, 127 mm (5 Inch) Diameter  
Bialkali Photocathode, 10-Stage, Head-on Type**

**GENERAL**

Parameter		Description	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Bialkali	—
	Minimum Effective Area	φ111	mm
Window Material	R877	Borosilicate glass	—
	R877-01	K-free Borosilicate glass	—
Dynode	Structure	Box and Grid	—
	Number of Stages	10	—
Direct Interelectrode Capacitances	Anode to Last Dynode	6	pF
	Anode to All Other Electrodes	7	pF
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-30 to +50	°C
Base		14-pin base JEDEC No. B14-38	—
Suitable Socket		E678-14W (sold separately)	—

**MAXIMUM RATINGS (Absolute Maximum Values)**

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	V
	Between Anode and Last Dynode	300	V
Average Anode Current		0.1	mA

**CHARACTERISTICS (at 25 °C)**

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	60	90	—	μA/lm
	Radiant at 420 nm	—	85	—	A/lm
	Blue Sensitivity Index (CS 5-58)	—	10.5	—	—
Anode Sensitivity	Luminous (2856 K)	20	40	—	A/W
	Radiant at 420 nm	—	$3.8 \times 10^4$	—	A/W
Gain		—	$4.4 \times 10^5$	—	—
Anode Dark Current (after 30 min storage in darkness)		—	10	50	nA
Time Response	Anode Pulse Rise Time	—	20	—	ns
	Electron Transit Time	—	115	—	ns
	Transit Time Spread (FWHM)	—	18.5	—	ns
Pulse Linearity (at standard ratio)	2 % Deviation	—	10	—	mA
	5 % Deviation	—	20	—	mA

**NOTE:** Anode characteristics are measured with the standard voltage distribution ratio shown below.

**VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE**

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Standard Ratio	1	1	1	1	1	1	1	1	1	1	1	1	1
Tapered Ratio	1	1	1	1	1	1	1	1	1.5	2.5	3	2.3	

Supply Voltage: 1250 V, K: Cathode, Dy: Dynode, P: Anode, G: Grid

# PHOTOMULTIPLIER TUBES R877, R877-01

Figure 1: Typical Spectral Response

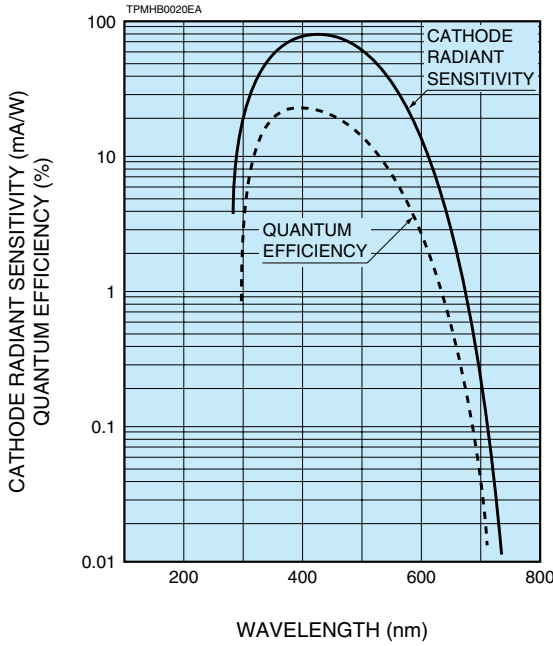


Figure 2: Dimensional Outline and Basing Diagram (Unit: mm)

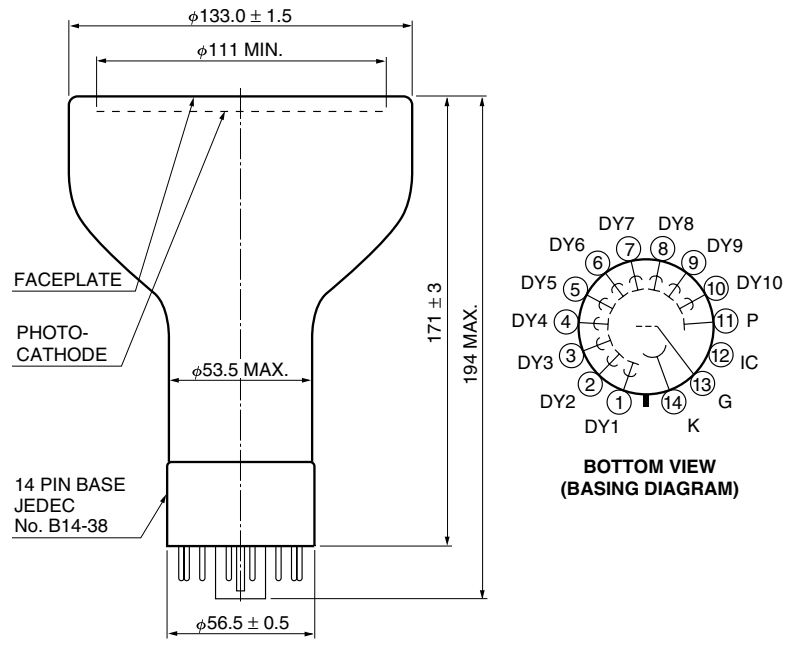
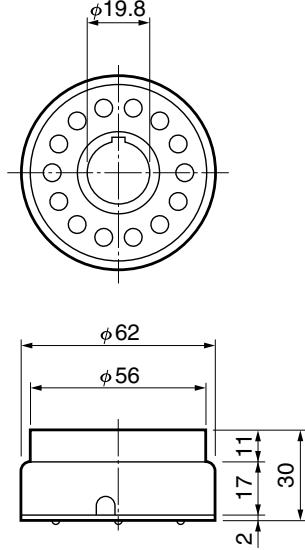
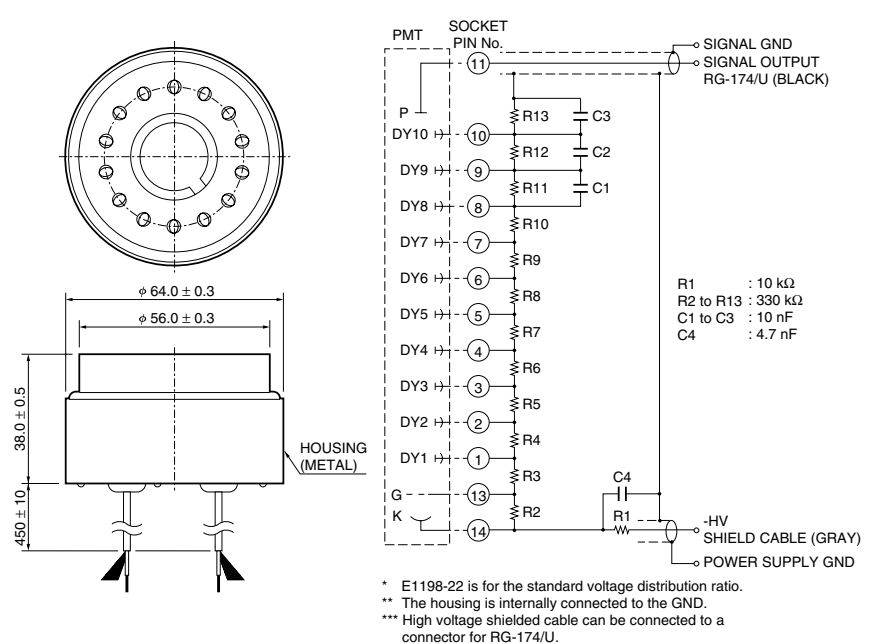


Figure 3: Accessories (Unit: mm)

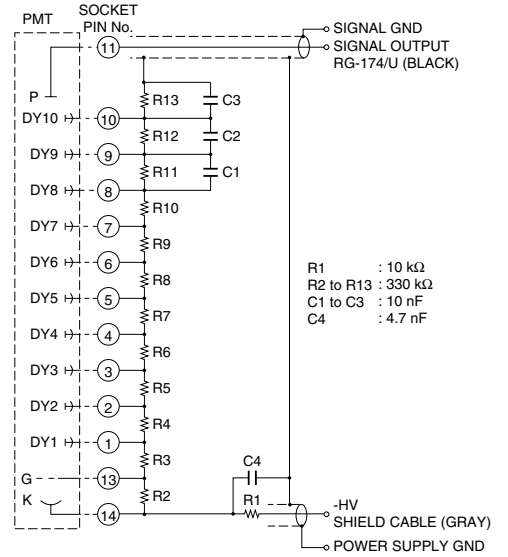
●Socket E678-14W (Sold separately)



●D-type Socket Assembly E1198-22 (Sold separately)



\* Pins are housed in the socket.



\* E1198-22 is for the standard voltage distribution ratio.  
 \*\* The housing is internally connected to the GND.  
 \*\*\* High voltage shielded cable can be connected to a connector for RG-174/U.

\* HAMAMATSU also provides high voltage power supply modules C11152 series.

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