

**For Single Photon Counting, Dark Counts 50cps Typ. at 25°C
For Extremely Low Light Level Detection
28mm (1-1/8 Inch) Diameter, 9-stage, Multialkali Photocathode, Side-On Type
185 to 850nm Spectral Response**

GENERAL

Parameter		Description/Value	Unit
Spectral Response		185 to 850	nm
Wavelength of Maximum Response		430	nm
Photocathode	Material	Multialkali	—
	Minimum Effective Area	8 × 24	mm
Window Material		UV glass	—
Dynode	Structure	Circular-cage	—
	Number of Stages	9	—
Direct Interelectrode Capacitances	Anode to Last Dynode	Approx. 4	pF
	Anode to All Other Electrodes	Approx. 6	pF
Base		JEDEC No. B11-88	—
Weight		Approx. 45	g
Suitable Socket		E678-11A (option)	—
Suitable Socket Assembly		E717-21, E717-37 (option)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1250	Vdc
	Between Anode and Last Dynode	250	
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)	140	200	—	μA/lm	
	Quantum Efficiency	at 400nm	—	23.7	—	%
		at 500nm	—	18.3	—	
		at 600nm	—	10.7	—	
		at 700nm	—	2.7	—	
		at 800nm	—	0.56	—	
Red/White Ratio		0.1	0.15	—	—	
Blue (CS-5-58 filter)		—	7.5	—	μA/lm-b	
Anode Sensitivity	Luminous (2856K)	300	700	—	A/lm	
Gain		—	3.5 × 10 ⁶	—	—	
Dark Counts *		—	50	100	cps	
Anode Dark Current (after 30min. storage in darkness)		—	0.2	1	nA	
Time Response	Anode Pulse Rise Time	—	2.2	—	ns	
	Electron Transit Time	—	22	—		
	Transit Time Spread (T.T.S.)	—	1.2	—		

* Measured at the voltage producing the gain of 1 × 10⁶

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

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

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

PHOTOMULTIPLIER TUBE R4632

Figure 1: Typical Spectral Response

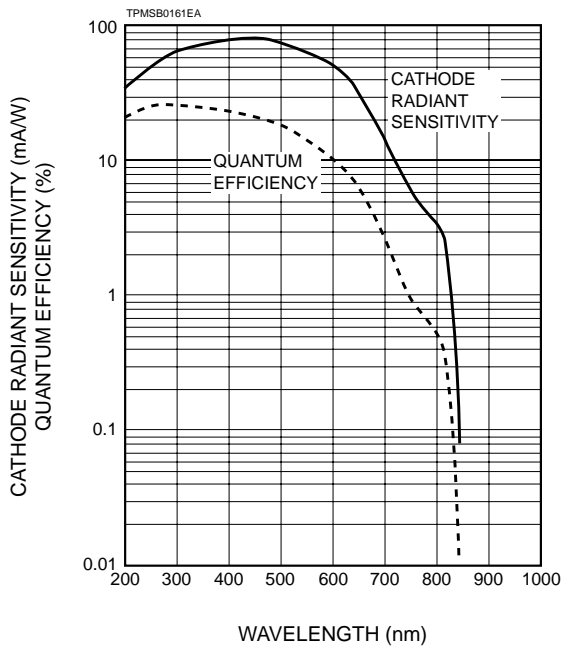


Figure 2: Anode Luminous Sensitivity and Gain Characteristics

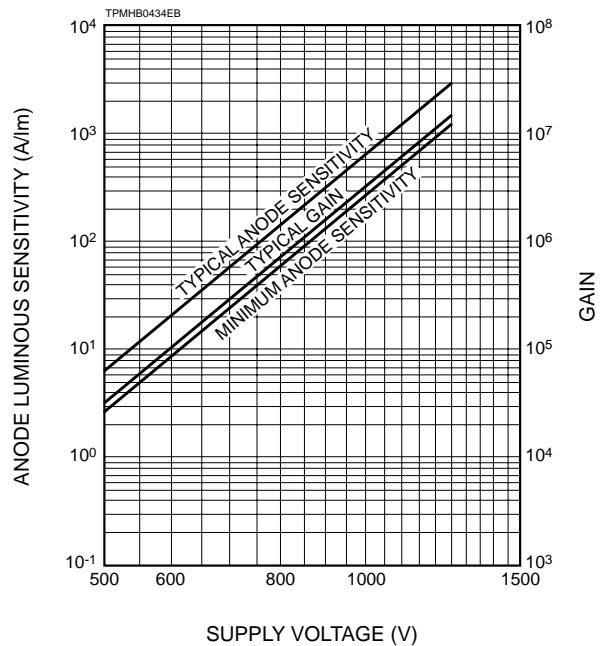


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)

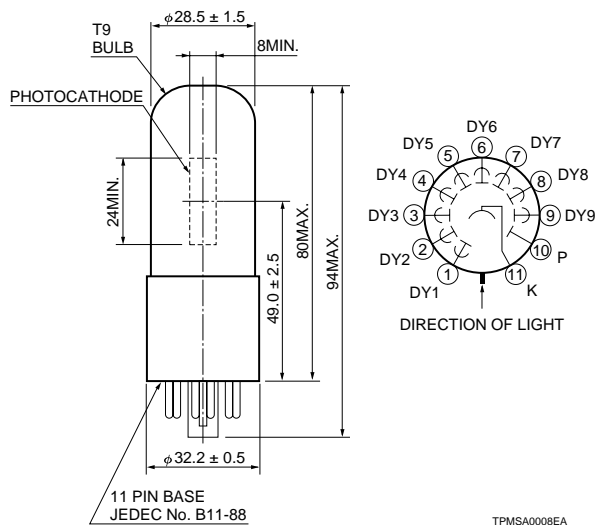
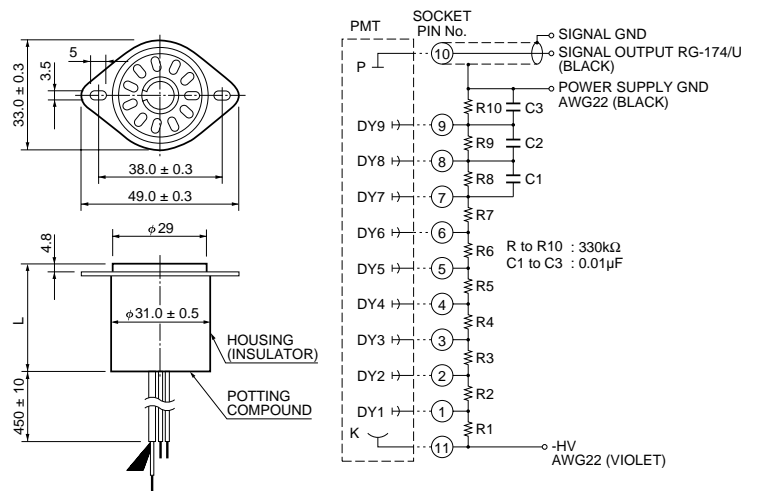


Figure 4: Optional Accessory (Unit: mm)

D Type Socket Assembly E717-21



* MHV/BNC connector type E717-37 is also available.

HAMAMATSU

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