

**28 mm (1-1/8 Inch) Diameter, 9-stage, Bialkali Photocathode, Side-on Type**  
**High Gain and Low Dark Current**  
**300 nm to 650 nm Spectral Response**

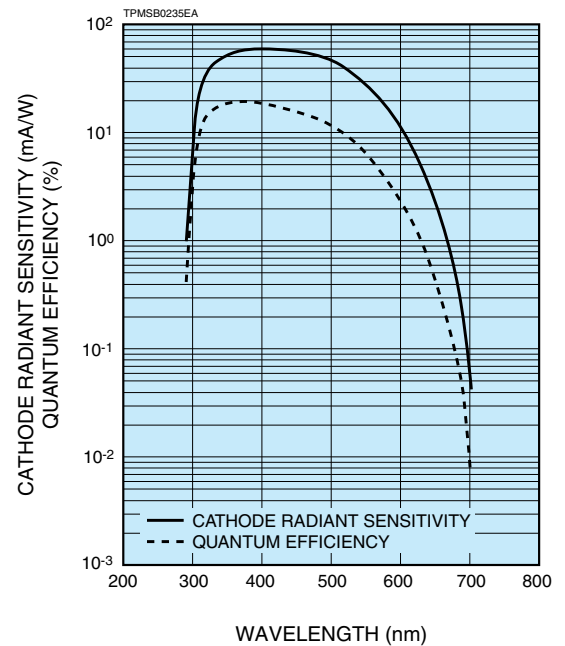
**SPECIFICATIONS**

**GENERAL**

Parameter	Description/Value	Unit
Spectral Response	300 to 650	nm
Wavelength of Maximum Response	400	nm
Photocathode	Material	Bialkali
	Minimum Effective Area	8 × 24
Window Material	Borosilicate glass	—
Dynode	Structure	Circular-cage
	Number of Stages	9
Direct Interelectrode Capacitances	Anode to Last Dynode	4
	Anode to All Other Electrodes	6
Base	11-pin base JEDEC No. B11-88	—
Weight	Approx. 45	g
Operating Ambient Temperature	-30 to +50	°C
Storage Temperature	-30 to +50	°C
Suitable Socket	E678-11A (Sold Separately)	—
Suitable Socket Assembly	E717-63 (Sold Separately)	—



Figure 1: Typical Spectral Response



**MAXIMUM RATINGS (Absolute Maximum Values)**

Parameter	Value	Unit
Supply Between Anode and Cathode	1250	V
Voltage Between Anode and Last Dynode	250	V
Average Anode Current	0.1	mA

**CHARACTERISTICS (at 25 °C)**

Parameter	Min.	Typ.	Max.	Unit	
Cathode Sensitivity	Luminous (2856 K)	40	60	—	μA/lm
	Radiant at 400 nm	—	60	—	mA/W
	Quantum Efficiency at 400 nm	—	18.6	—	%
	Blue Sensitivity Index (CS 5-58)	—	7.1	—	—
Anode Sensitivity	Luminous (2856 K)	200	600	2000	A/lm
	Radiant at 400 nm	—	6 × 10 <sup>5</sup>	—	A/W
Gain	—	1.0 × 10 <sup>7</sup>	—	—	
Anode Dark Current (After 30 min Storage in Darkness)	—	1	10	nA	
Time Response	Anode Pulse Rise Time	—	2.2	—	ns
	Electron Transit Time	—	22	—	ns

**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: 1000 V, K: Cathode, Dy: Dynode, P: Anode

# PHOTOMULTIPLIER TUBE R11558

Figure 2: Typical Gain Characteristics

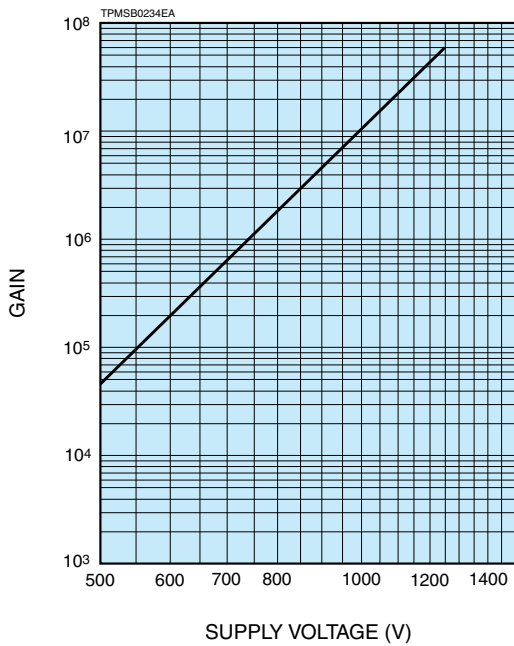


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)

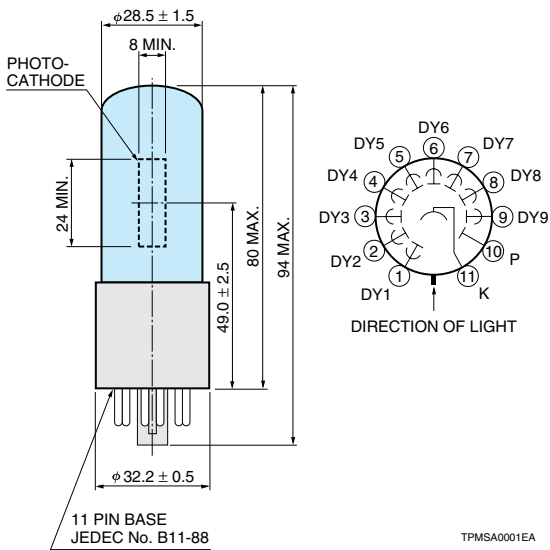
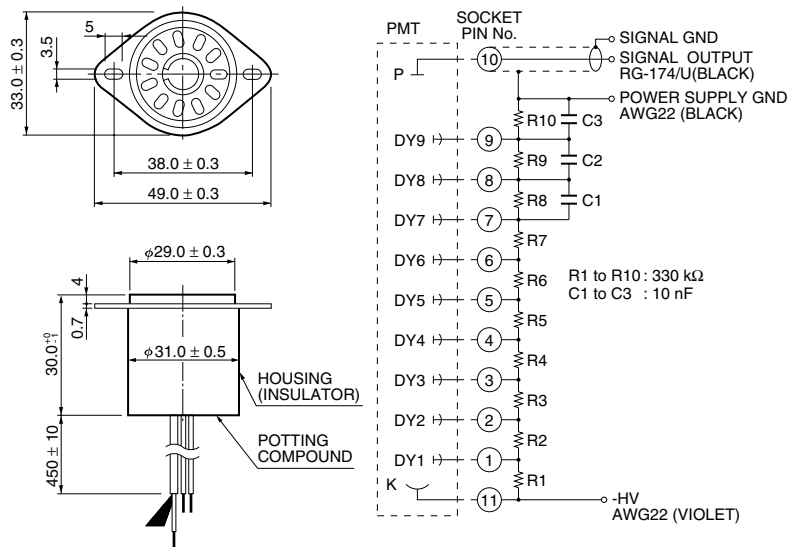


Figure 4: Accessories (Unit: mm) Sold Separately

### D Type Socket Assembly E717-63



\* Hamamatsu also provides C4900 series compact high voltage power supplies and C12597-01, C8991 DP type socket assemblies which incorporate a DC to DC converter type high voltage power supply.

**Warning—Personal Safety Hazards**  
Electrical Shock—Operating voltages applied to this device present a shock hazard.

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