

**For visible to near IR low light detections  
Extended red multialkali photocathode  
51mm(2 Inch) diameter, 12-stage, Head-on type**

## GENERAL

Parameter		Description/Value	Unit
Spectral Response		300 to 900	nm
Wavelength of Maximum Response		600	nm
Photocathode	Material	Extended red multialkali	—
	Minimum Effective Area	46	mm dia.
Window Material		Borosilicate glass	—
Dynode	Structure	Linear focused	—
	Number of Stages	12	—
Direct Interelectrode Capacitances	Anode to Last Dynode	2	pF
	Anode to All Other Electrodes	2.5	pF
Base		21-pin glass base	—
Suitable Socket		E678-21A(supplied)	—

## MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	2700	Vdc
	Between Anode and Last Dynode	500	Vdc
Average Anode Current		0.2	mA
Ambient Temperature		-80 to +50	°C

## CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous(2856K)	140	230	—	μA/lm
	Radiant at 600nm	—	50	—	mA/W
	Red/White Ratio (R-68 filter)	—	0.35	—	—
Anode Sensitivity	Luminous(2856K)	15	100	—	A/lm
	Radiant at 600nm	—	2.2 × 10 <sup>4</sup>	—	A/W
Gain		—	4.3 × 10 <sup>5</sup>	—	—
Dark Current (after 30min. storage in darkness)		—	30	100	nA
Time Response	Anode Pulse Rise Time	—	2.6	—	ns
	Electron Transit Time	—	48	—	ns

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

## VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	Dy11	Dy12	P
Ratio	4	0	1	1.4	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage : 1500Vdc, K : Cathode, Dy : Dynode, G : Grid, P : Anode

※ Shield is connected to Dy5.

# PHOTOMULTIPLIER TUBE R2257

Figure 1: Typical Spectral Response

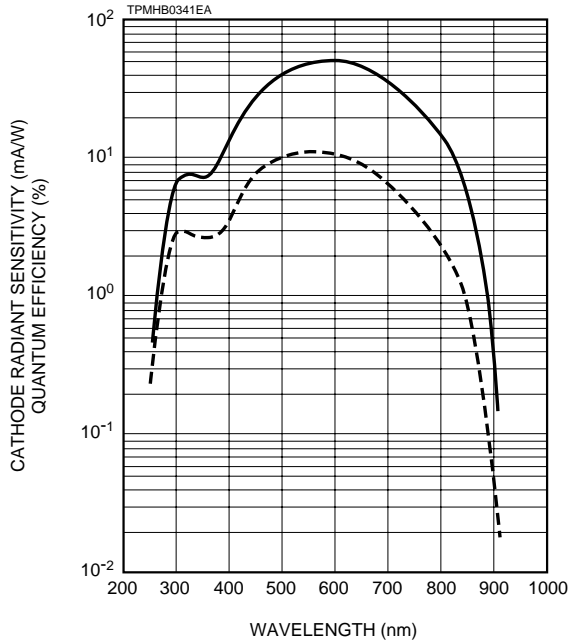


Figure 2: Typical Gain Characteristics

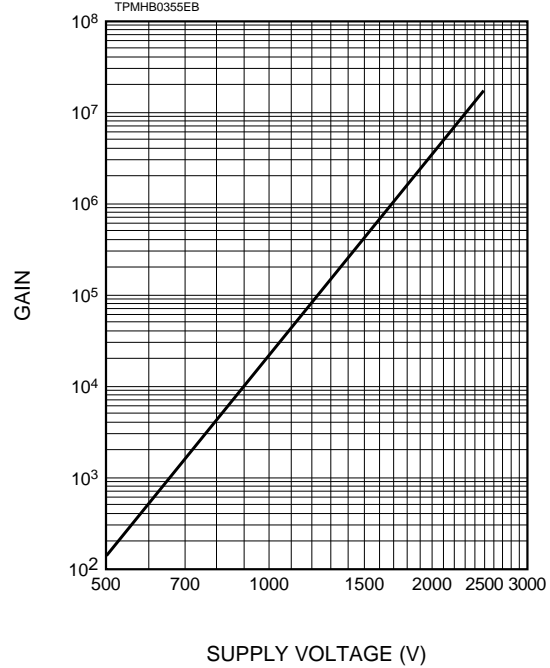
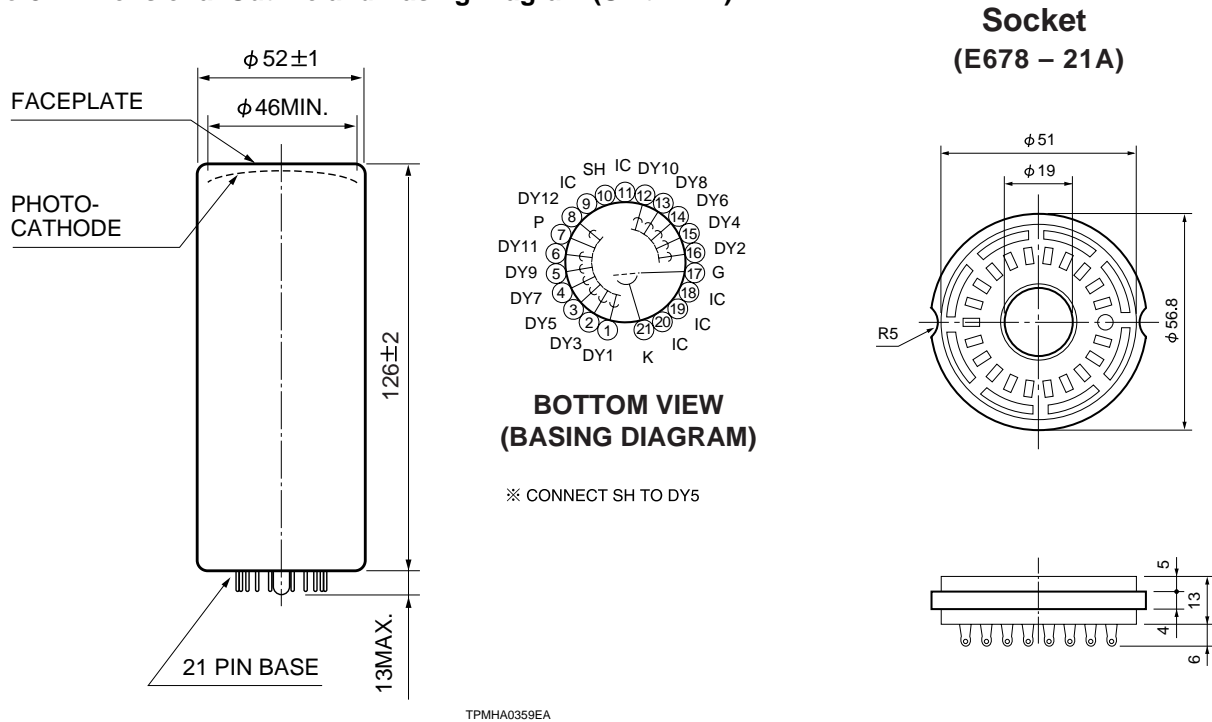


Figure 3: Dimensional Outline and Basing Diagram (Unit : mm)



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