

## FEATURES

- High speed response
- Assembly type is also available
  - : H2431-50 (R2083 built-in type)
  - : H3378-50 (R3377 built-in type)

## APPLICATIONS

- High energy physics
- Scintillation counting



## SPECIFICATIONS

### GENERAL

Parameter		Description / Value	Unit
Spectral response	R2083	300 to 650	nm
	R3377	160 to 650	nm
Wavelength of maximum response		420	nm
Photocathode	Material	Bialkali	—
	Minimum effective area	φ46	mm
Window material	R2083	Borosilicate glass	—
	R3377	Silica glass	—
Dynode	Structure	Linear focused	—
	Number of stages	8	—
Operating ambient temperature		-30 to +50	°C
Storage temperature		-30 to +50	°C
Base		19-pin glass base with SMA output connector	—
Suitable socket		E678-19J (supplied)	—

### MAXIMUM RATINGS (Absolute maximum values)

Parameter		Value	Unit
Supply voltage	Between anode and cathode	3500	V
	Between anode and last dynode	1000	V
Average anode current		0.2	mA

### CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit	
Cathode sensitivity	Luminous (2856 K)	60	80	—	μA/lm	
	Blue sensitivity Index	R2083	—	10.0	—	—
		R3377	—	9.5	—	—
Anode sensitivity	Luminous (2856 K)	50	200	—	A/lm	
Gain		—	2.5 × 10 <sup>6</sup>	—	—	
Anode dark current (after 30 min storage in darkness)		—	100	800	nA	
Time response	Anode pulse rise time	—	0.8	—	ns	
	Electron transit time	—	16	—	ns	
	Transit time spread (FWHM)	—	0.37	—	ns	
Pulse linearity at 2 % deviation		—	100	—	mA	

### VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Acc	Dy7	Dy8	P
Ratio	1.3	4.8	1.2	1.8	1	1	1	1	0.5	3	2.5	

Supply voltage: 3000 V, K: Cathode, Dy: Dynode, P: Anode, G: Grid, Acc: Accelerating electrode

# PHOTOMULTIPLIER TUBES R2083, R3377

Figure 1: Typical spectral response

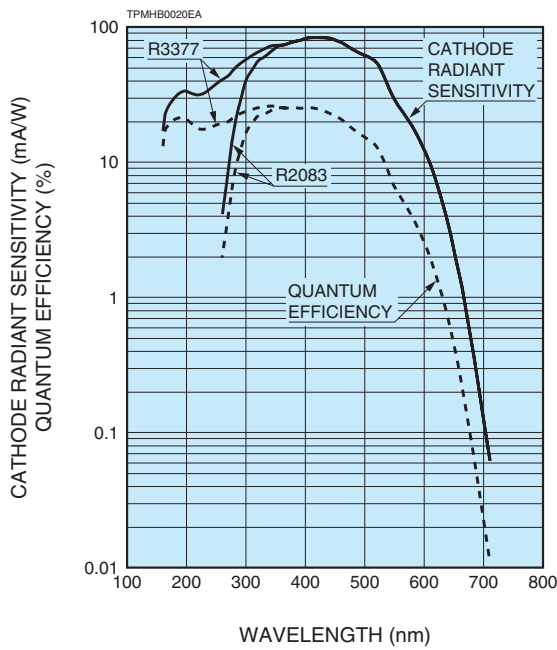


Figure 2: Typical gain characteristics

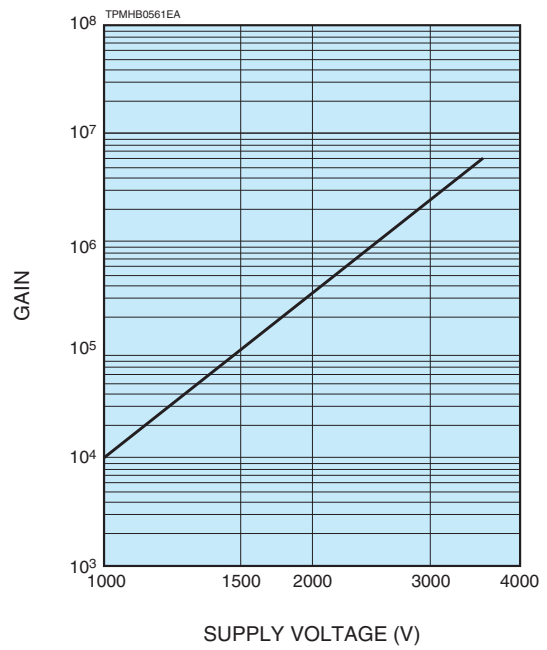
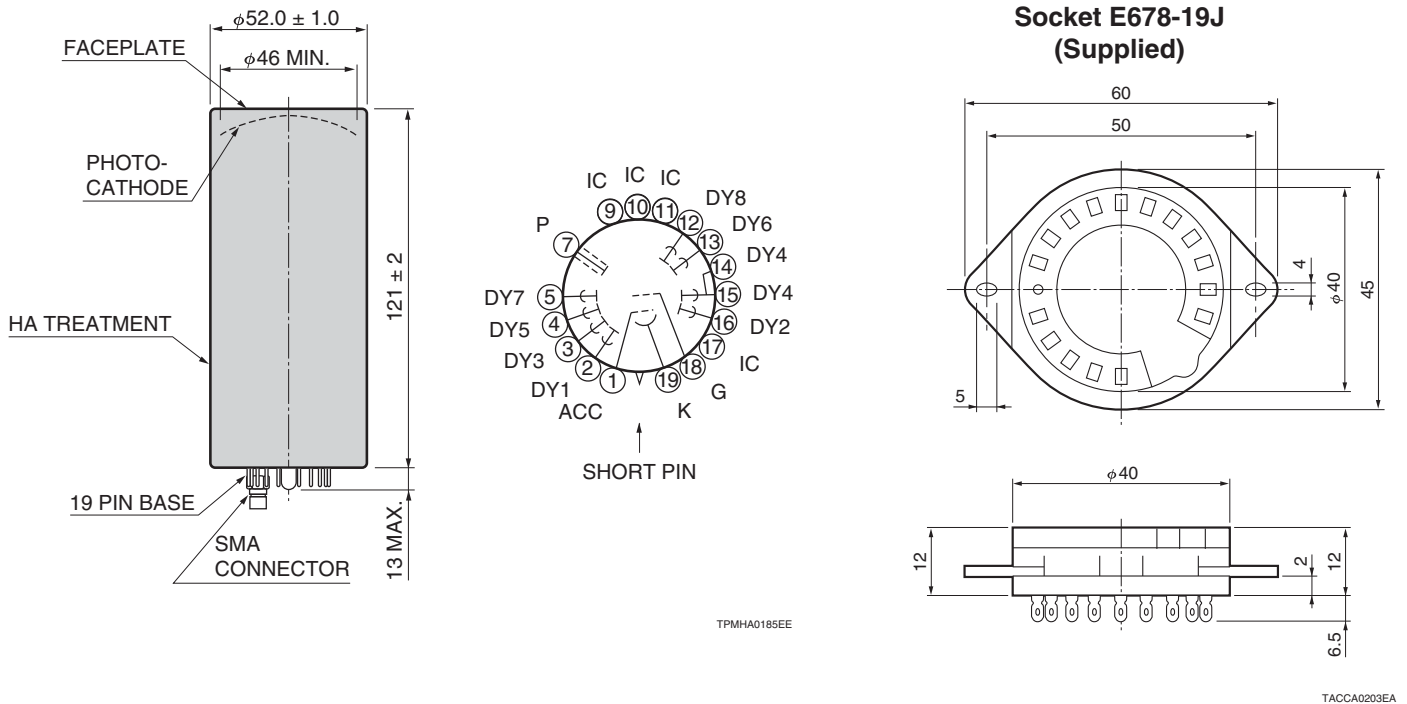


Figure 3: Dimensional outline and basing diagram (Unit: mm)



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