

## Bialkali Photocathode 28 mm (1-1/8 Inch) Diameter, Side-on Type

### FEATURES

- High Sensitivity in UV to Visible Range
- High Quantum Efficiency  
40 % (at 350 nm)
- High Anode Sensitivity  
11.3 × 10<sup>5</sup> A/W (at 350 nm)  
12.0 × 10<sup>5</sup> A/W (at 420 nm)

### APPLICATIONS

- Fluorescence Spectrophotometer
- Emission Spectrophotometer
- Atomic Absorption Spectrophotometer

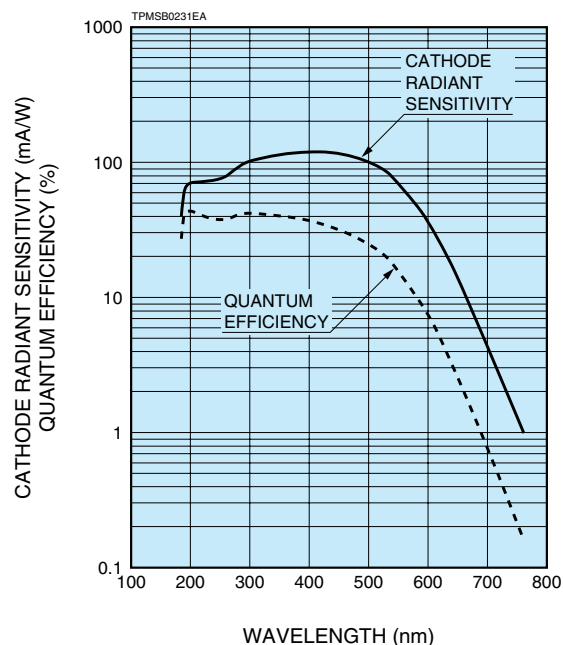


### SPECIFICATIONS

#### GENERAL

Parameter	Description / Value	Unit
Spectral Response	185 to 760	nm
Wavelength of Maximum Response	420	nm
Photocathode Material	Bialkali	—
Window Material	UV glass	—
Minimum Effective Area	8 × 24	mm
Dynode	Structure	Circular-cage
	Number of Stage	9
Direct Interelectrode Capacitances	Anode to Dynode No.9	4 pF
	Anode to All Other Electrodes	6 pF
Base	11-pin base	—
Weight	45	g
Suitable Socket for Base	E678-11A	—

Figure 1: Typical Spectral Response



# PHOTOMULTIPLIER TUBES R11540

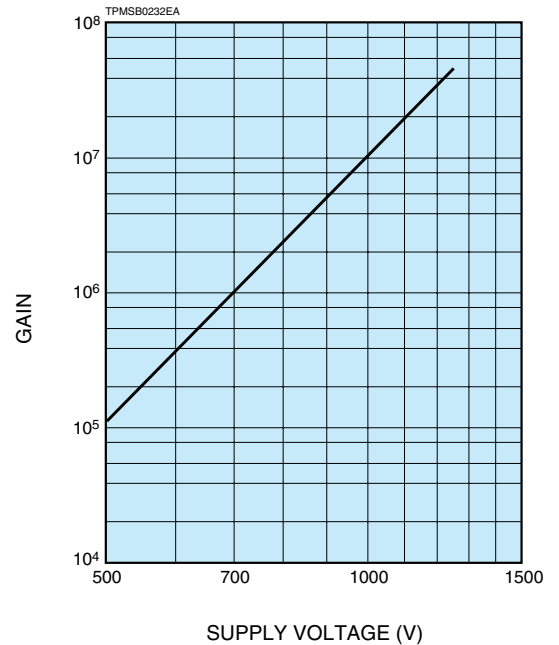
## MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1250	V
	Between Each Succeeding Electrode	250	V
Average Anode Current		0.1	mA

## CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit	
Anode Sensitivity	Luminous Sensitivity (2856 K)	1300	1900	—	A/lm	
	Radiant	at 350 nm	—	$11.3 \times 10^5$	—	A/W
		at 420 nm	—	$12.0 \times 10^5$	—	A/W
Cathode Sensitivity	Luminous Sensitivity (2856 K)	160	190	—	$\mu\text{A/lm}$	
	Quantum Efficiency	at 350 nm	—	40	—	%
		at 420 nm	—	113	—	mA/W
	Radiant	at 350 nm	—	113	—	mA/W
		at 420 nm	—	120	—	mA/W
	Blue Sensitivity Index (CS 5-58 Filter)		13	16	—	—
Red / White Ratio (R-68 Filter)		—	0.02	—	—	
Gain		—	$1.0 \times 10^7$	—	—	
Anode Dark Current (after 30 min storage in darkness)		—	5	50	nA	
Anode Current Stability	Light Hysteresis	—	0.1	—	%	
	Voltage Hysteresis	—	1.0	—	%	
ENI		—	$1.1 \times 10^{-16}$	—	W	
EADCl at 1000 V		—	$2.9 \times 10^{-12}$	—	lm	
Time Response	Anode Pulse Rise Time	—	2.2	—	ns	
	Electron Transit Time	—	22	—	ns	
Operating Ambient Temperature		—	-30 to +50	—	°C	
Storage Temperature		—	-30 to +50	—	°C	

Figure 2: Typical Gain Characteristics

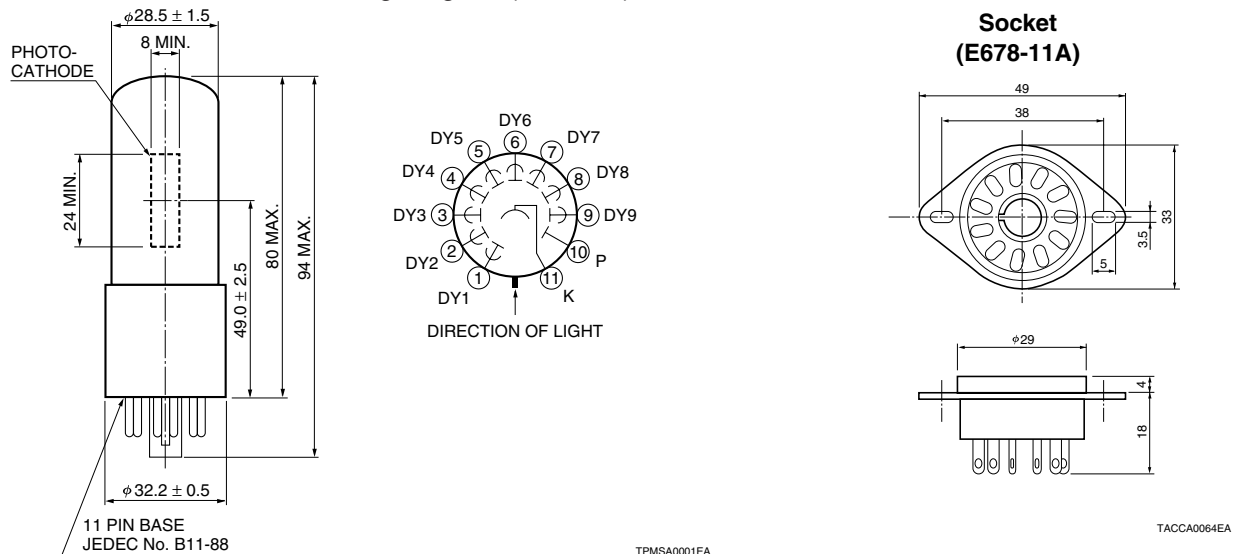


## VOLTAGE DISTRIBUTION RATIO

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

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



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