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**Operating Instructions  
for  
PMT Tube  
P1**

### FEATURES

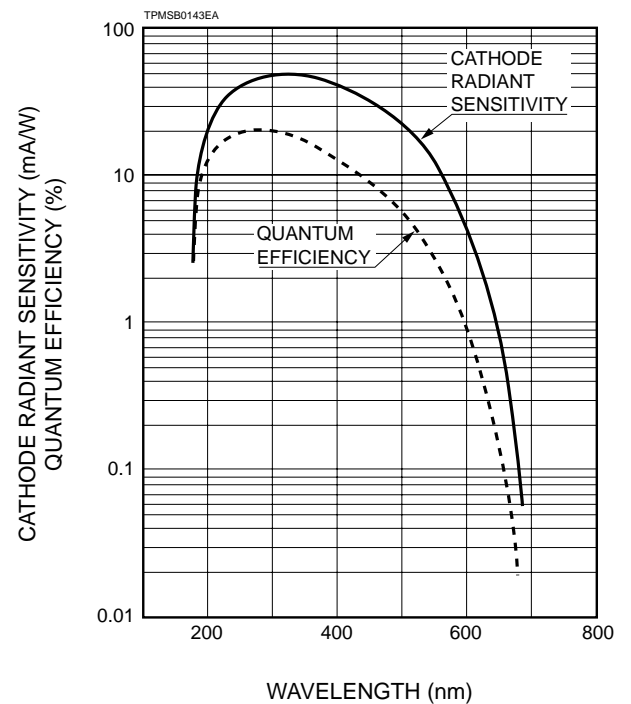
- 28mm (1-1/8 Inch) Diameter Side-on
- 185 to 650nm Spectral Response
- For UV to Visible Range Photocathode



### GENERAL

Parameter	Description/Value	Unit
Spectral Response	185 to 650	nm
Wavelength of Maximum Response	340	nm
Photo-cathode	Material	Sb-Cs
	Minimum Useful Size	8 × 24
Window Material	UV glass	—
Dynode	Structure	Circular-cage
	Number of Stages	9
Direct Interelectrode Capacitances	Anode to Last Dynode	4
	Anode to All Other Electrodes	6
Base	JEDEC No. B11-88	—
Suitable Socket	E678-11A	—

Figure 1: Typical Spectral Response



# PHOTOMULTIPLIER TUBE 1P28

## MAXIMUM RATINGS (Absolute Maximum Values)

Parameter	Value	Unit	
Supply Voltage	Between Anode and Cathode	1250	Vdc
	Between Anode and Last Dynode	250	Vdc
Average Anode Current	0.1	mA	
Ambient Temperature	-80 to +50	°C	

## CHARACTERISTICS (at 25°C)

Parameter	Min.	Typ.	Max.	Unit	
Anode Sensitivity	Luminous (2856K)	20	400	—	A/lm
	Radiant at 400nm	—	$4.8 \times 10^5$	—	A/W
Cathode Sensitivity	Luminous (2856K)	25	40	—	μA/lm
	Radiant at 400nm	—	48	—	mA/W
	Quantum Efficiency at 340nm	—	21	—	%
Gain	—	$1.0 \times 10^7$	—	—	
Anode Dark Current (after 30 minute)	—	5	50	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: 1000Vdc, K: Cathode, Dy: Dynode, P: Anode

Figure 2: Typical Gain Characteristics

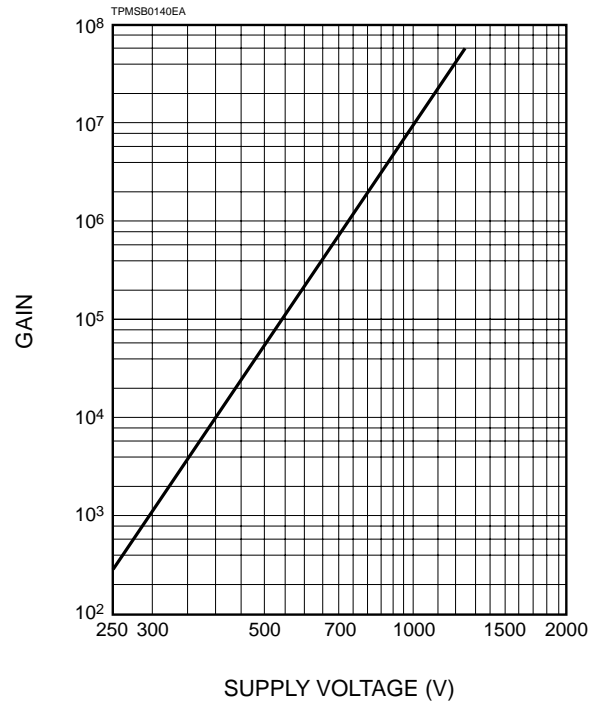
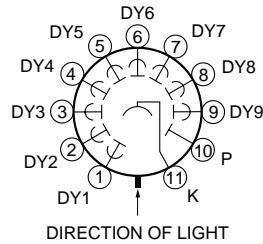
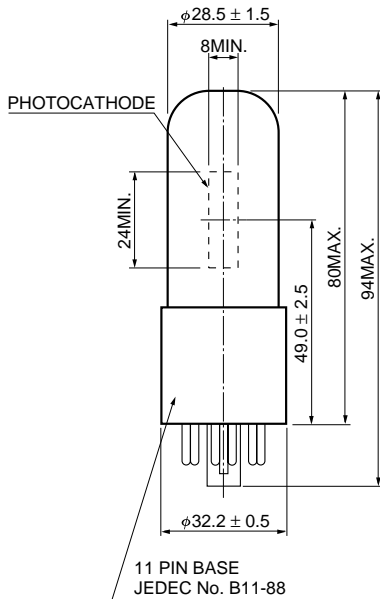
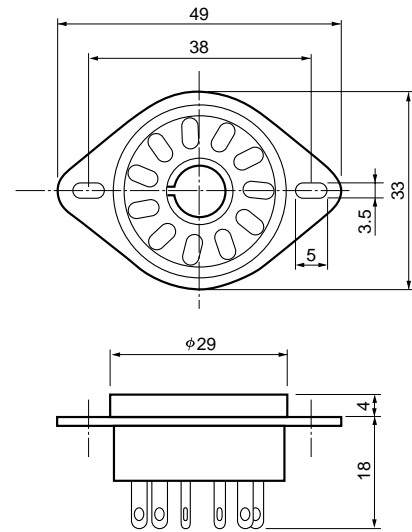


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



TPMSA0001EA

Socket (Option) (E678-11A)



TACCA0064EA

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