

## S-1 Spectral Response, High Infrared Sensitivity (QE0.08% at 1.06 $\mu\text{m}$ ) 38mm(1-1/2 Inch) Diameter, 10-Stage, Head-On Type

### GENERAL

Parameter		Description/Value	Unit
Spectral Response		400 to 1200	nm
Wavelength of Maximum Response		800	nm
Photocathode	Material	Ag-O-Cs	—
	Minimum Effective Area	34	mm dia.
Window Material		Borosilicate glass	—
Dynode	Structure	Circular-cage	—
	Number of Stages	10	—
Base		12-pin base JEDEC No. B12-43	—
Suitable Socket		E678-12A (supplied)	—

### MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	Vdc
	Between Anode and Last Dynode	250	Vdc
Average Anode Current		0.01	mA
Ambient Temperature		-30 to +50	$^{\circ}\text{C}$

### CHARACTERISTICS (at 25 $^{\circ}\text{C}$ )

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	10	25	—	$\mu\text{A/lm}$
	Radiant at 800nm	—	2.4	—	mA/W
	Red/White Ratio (Toshiba IR-D80A filter)	—	0.14	—	—
	Quantum Efficiency at 1.06 $\mu\text{m}$	—	0.08	—	%
Anode Sensitivity	Luminous (2856K)	1	5	—	A/lm
	Radiant at 800nm	—	480	—	A/W
Gain		—	$2 \times 10^5$	—	—
Anode Dark Current (at 4 A/lm)		—	7000	20000	nA
Time Response	Anode Pulse Rise Time	—	2.2	—	ns
	Electron Transit Time	—	37	—	ns

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

### VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	2	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage : 1250Vdc, K : Cathode, Dy : Dynode, P : Anode

# PHOTOMULTIPLIER TUBE R1767

Figure 1: Typical Spectral Response

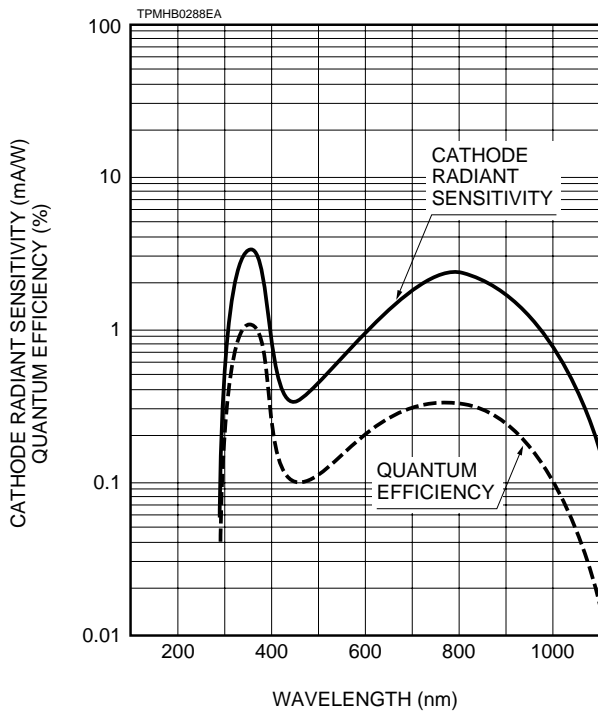
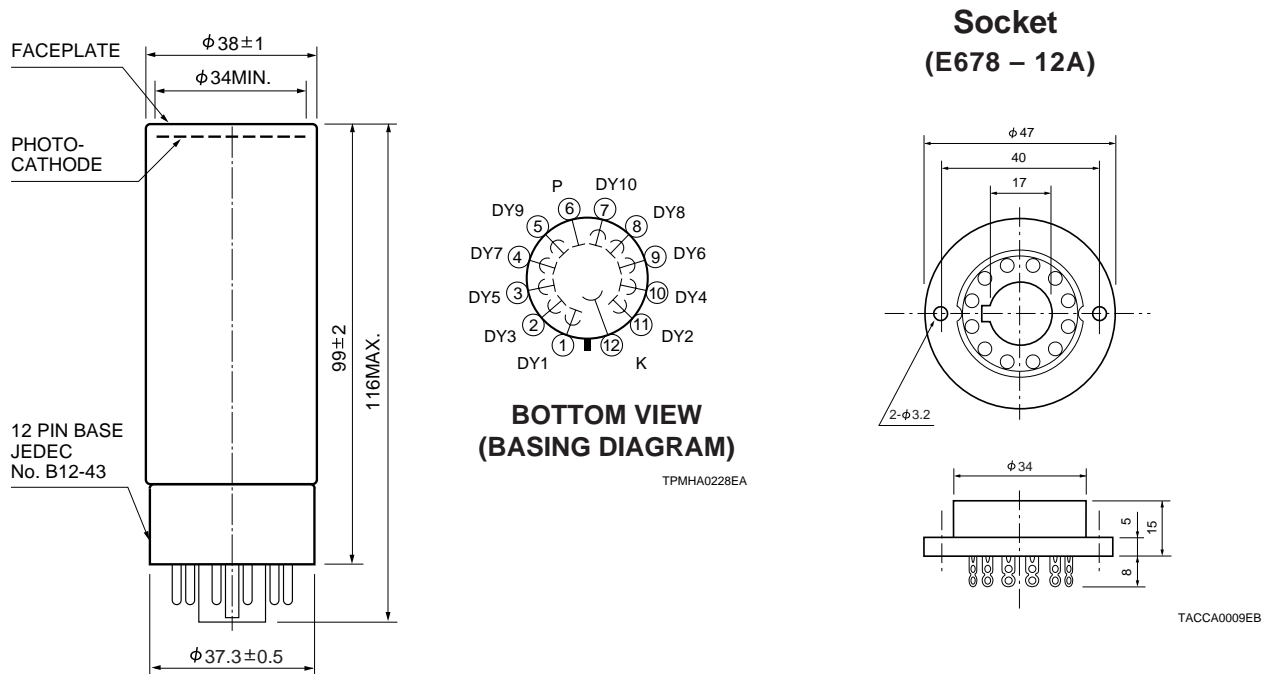


Figure 2: Dimensional Outline and Basing Diagram (Unit: mm)



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