

## 300 to 850nm Response (S-20) 38mm(1-1/2 Inch) Diameter, 10-stage, Head-On Type

The configuration and basing diagram of the R1387 are identical with 6199 Photomultiplier tubes.

### GENERAL

Parameter		Description/Value	Unit
Spectral Response		300 to 850	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Multialkali	–
	Minimum Effective Area	34	mm dia.
Window Material		Borosilicate glass	–
Dynode	Structure	Circular–cage	–
	Number of Stages	10	–
Direct Interelectrode Capacitances	Anode to Last Dynode	3.0	pF
	Anode to All Other Electrodes	4.0	pF
Base		12 –pin base JEDEC No.B12–43	–
Suitable Socket		E678–12A(supplied)	–
Weight		81	g

### 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		0.2	mA
Ambient Temperature		-30 to +50	°C

### CHARACTERISTICS (at 25°C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	80	150	–	μA/lm
	Radiant at 420nm	–	64	–	mA/W
	Red/White Ratio (R–68)	–	0.2	–	–
Anode Sensitivity	Luminous (2856K)	10	50	–	A/lm
	Radiant at 420nm	–	$2.1 \times 10^4$	–	A/W
Gain		–	$3.3 \times 10^5$	–	–
Anode Dark Current (after 30min. storage in darkness)		–	4	25	nA
Time Response	Anode Pulse Rise Time	–	2.8	–	ns
	Electron Transit Time	–	40	–	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 : 1000Vdc, K : Cathode, Dy : Dynode, P : Anode

# PHOTOMULTIPLIER TUBE R1387

Figure 1: Typical Spectral Response

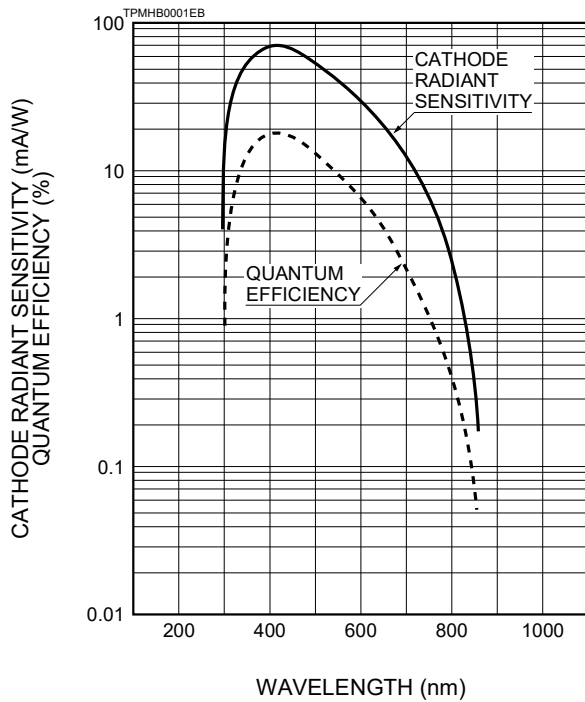


Figure 2: Typical Gain

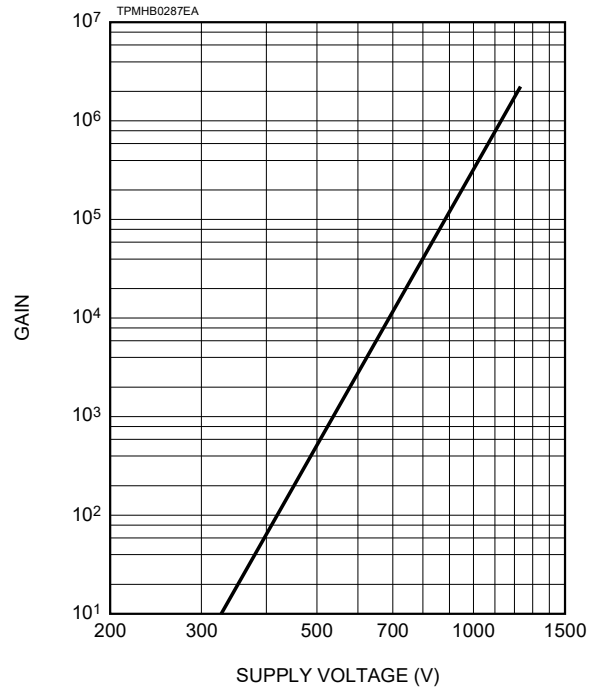
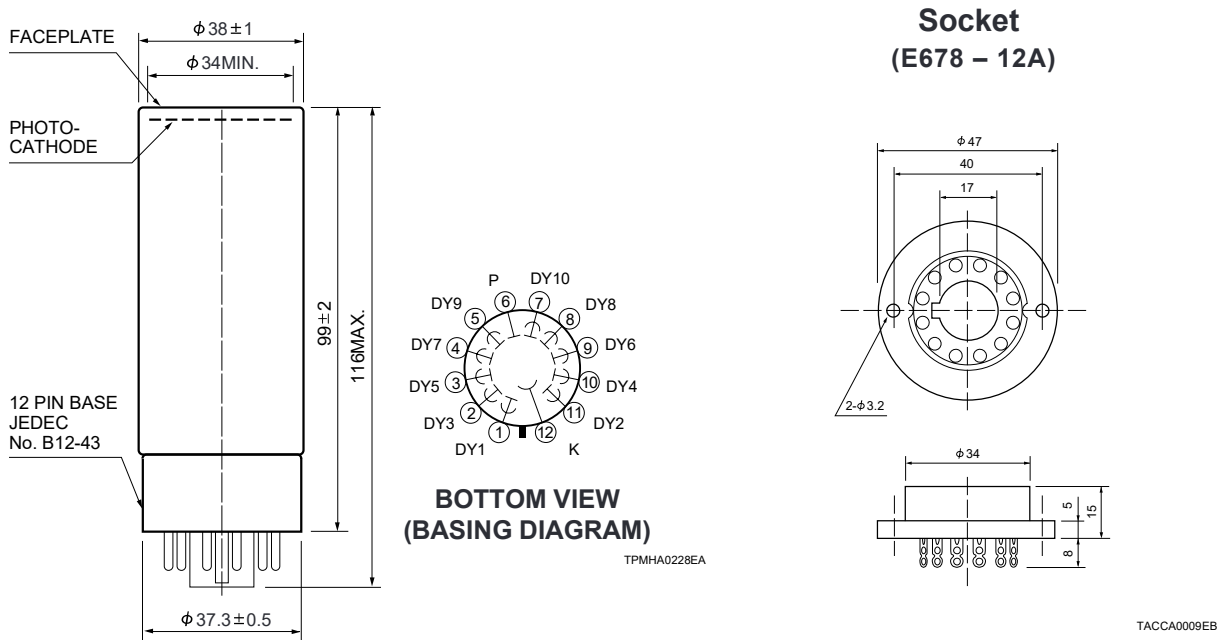


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



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