

Ruggedized, High Temperature(175) PMT for Oil Well Logging 51 mm(2 Inch) Diameter, 10-Stage, Head-On Type

GENERAL

Parameter		Description/Value	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		375	nm
Photocathode	Material	High temp. bialkali	—
	Minimum Effective Area	46	mm dia.
Window Material		Borosilicate glass	—
Dynode	Structure	Circular-cage	—
	Number of Stages	10	—
Base		15-pin glass base	—
Suitable Socket		E678-15B (supplied)	—

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1800	V dc
	Between Anode and Last Dynode	250	V dc
Average Anode Current		0.02	mA
Ambient Temperature		-80 to +175	°C

CHARACTERISTICS (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	20	40	—	μA/lm
	Radiant at 375 nm	—	51	—	mA/W
	Blue Sensitivity Index (CS 5-58)	4	6	—	—
Anode Sensitivity	Luminous (2856 K)	5	20	—	A/lm
	Radiant at 375 nm	—	2.5 × 10 ⁴	—	A/W
Gain		—	5 × 10 ⁵	—	—
Anode Dark Current (after 30 min storage in darkness)		—	3*	50	nA
Time Response	Anode Pulse Rise Time	—	2.5	—	ns
	Electron Transit Time	—	29	—	ns

*1.5 μA at 175 °C

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: 1500 V dc, K: Cathode, Dy: Dynode, P: Anode

ENVIRONMENTAL TESTING

Shock 100 g's, 11 ± 1 ms, 3 impact shocks per direction (6 directions)

Vibration 20 g's, 50 Hz to 2000 Hz, 1 oct per minute, 3 sweeps per axis (3 axes)
(Only initial production tubes are tested)

PHOTOMULTIPLIER TUBE R4607-01

Figure 1: Typical Spectral Response

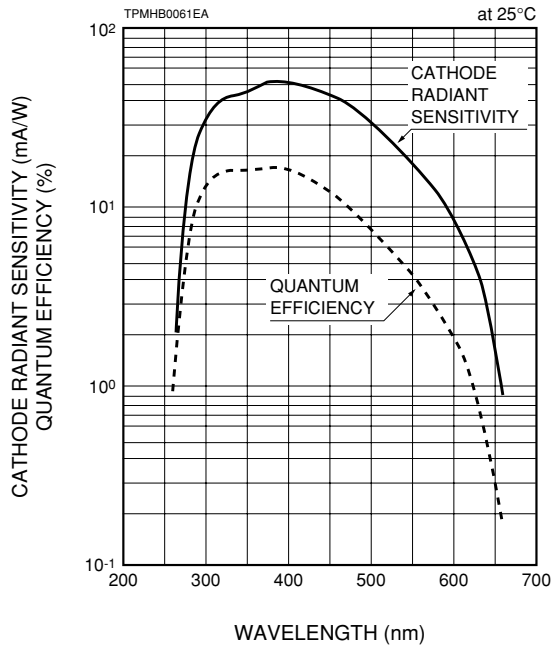


Figure 2: Typical Gain Characteristics

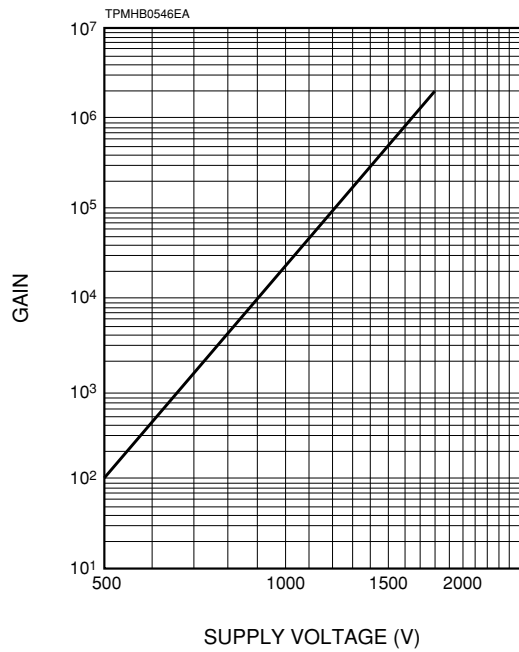
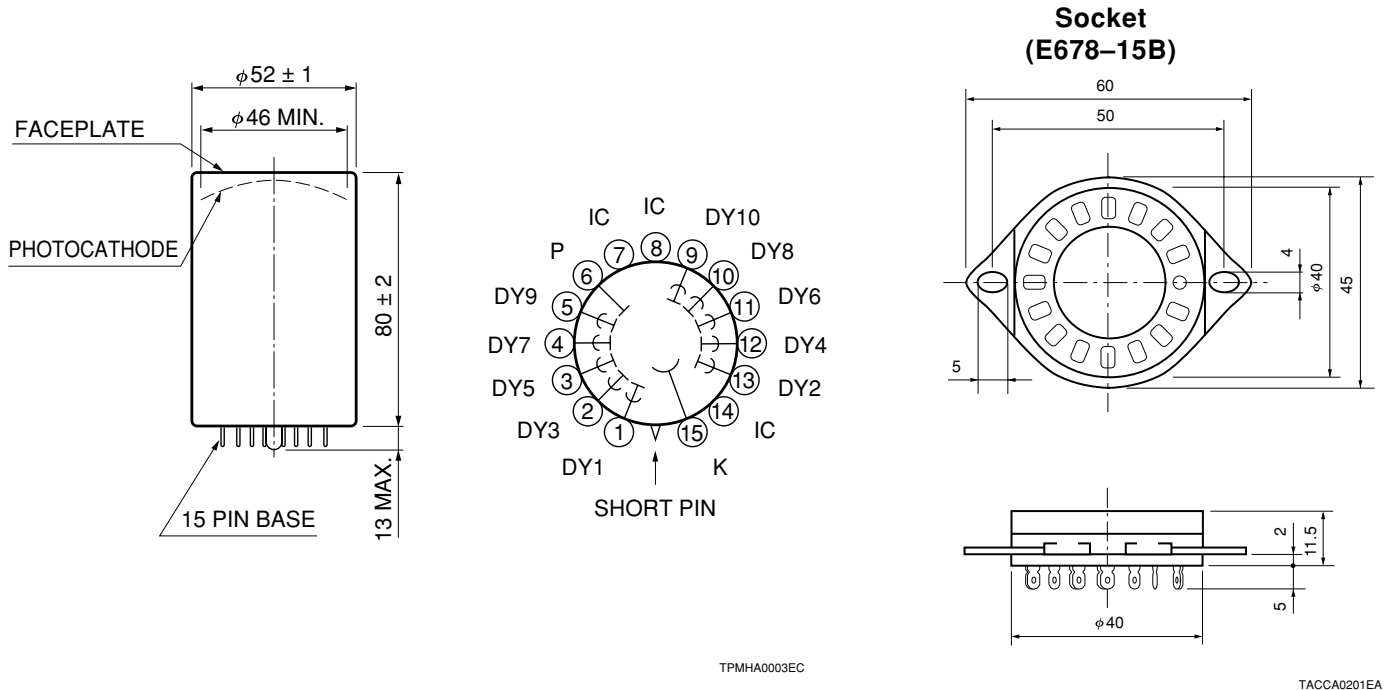


Figure 3: Dimensional Outline and Basing Diagram (Unit: mm)



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