HAMAMATSU

PHOTOMULTIPLIER TUBES
R632, R632-01

S-1 Spectral Response(QE 0.05% at 1.06 μm <R632-01>)
19mm(3/4 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	15	mm dia.
Window Material		Borosilicate glass	–
Dynode	Structure	Linear focused	–
	Number of Stages	10	–
Base		12–pin glass base	–
Suitable Socket		E678–12L(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		-80 to +50	℃

CHARACTERISTICS (at 25℃)

Parameter			Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous(2856K)		10	20	–	μA/lm
	Radiant at 800nm		–	1.9	–	mA/W
	Red/White Ratio (with Toshiba IR–D80A)	R632	–	0.1	–	–
		R632–01	–	0.14	–	–
	Quantum Efficiency at 1.06 μ m	R632	–	0.02	–	%
		R632–01	–	0.05	–	%
Anode Sensitivity	Luminous(2856K)		5	10	–	A/lm
	Radiant at 800nm		–	950	–	A/W
Gain			–	5×10^5	–	–
Anode Dark Current(at 4A/lm)		R632	–	150	500	nA
		R632–01	–	800	2000	nA
Time Response	Anode Pulse Rise Time		–	2.2	–	ns
	Electron Transit Time		–	25	–	ns

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

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

<table>
<tr><td>Electrode</td><td colspan="2">K</td><td colspan="2">Dy1</td><td colspan="2">Dy2</td><td colspan="2">Dy3</td><td colspan="2">Dy4</td><td colspan="2">Dy5</td><td colspan="2">Dy6</td><td colspan="2">Dy7</td><td colspan="2">Dy8</td><td colspan="2">Dy9</td><td colspan="2">Dy10</td><td colspan="2">P</td></tr>
<tr><td>Ratio</td><td></td><td colspan="2">1.5</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">1</td><td></td></tr>
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Supply Voltage : 1250Vdc, K:Cathode, Dy:Dynode, P:Anode

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Figure 1: Typical Spectral Response

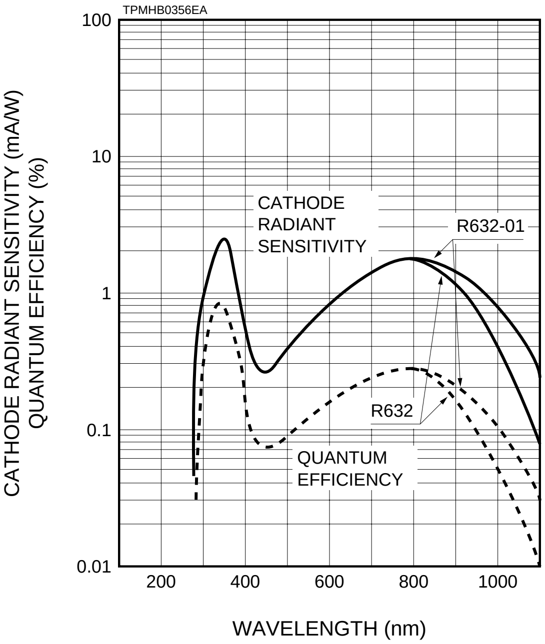


Figure 2: Typical Gain and Anode Dark Current

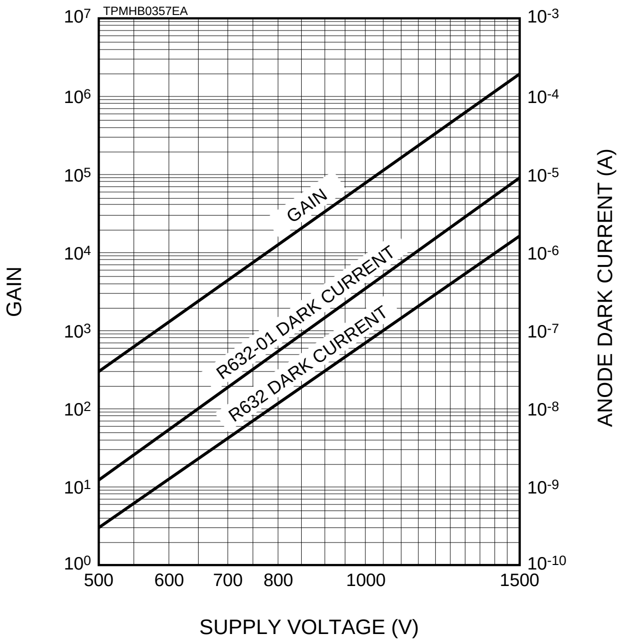


Figure 3: Typical Temperature Characteristics of Dark Current

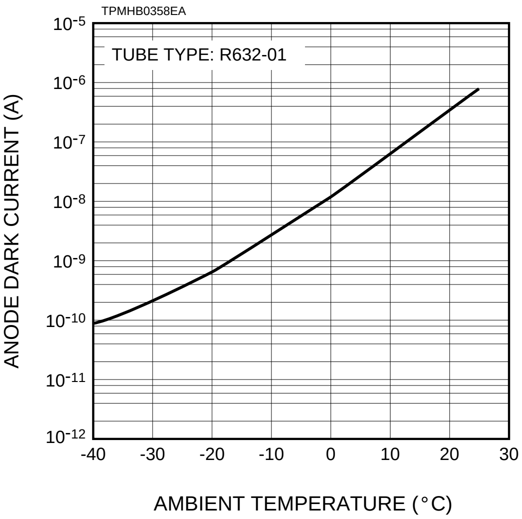
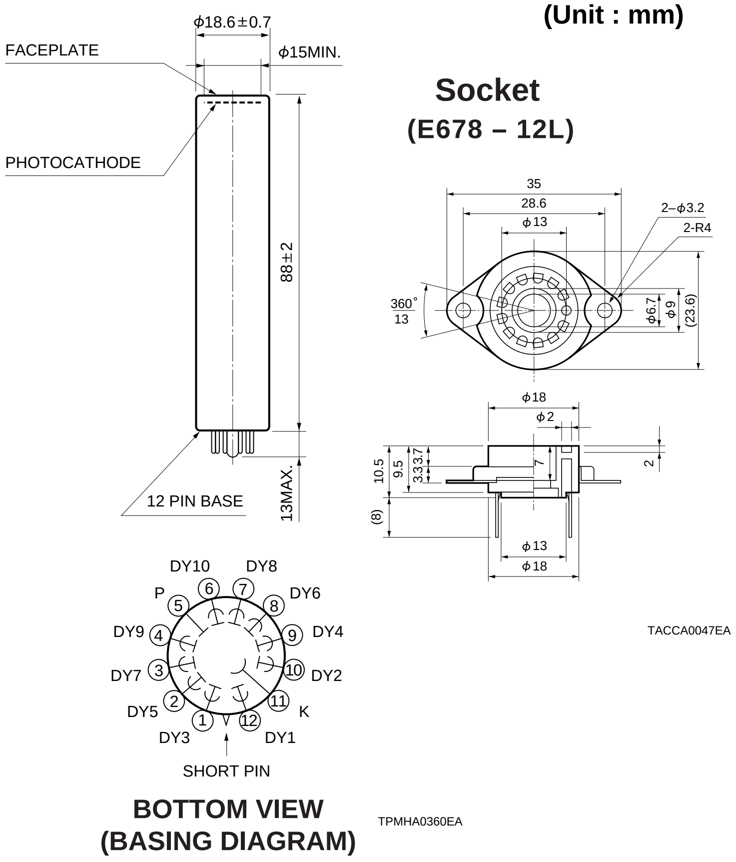


Figure 4: Dimensional Outline and Basing Diagram (Unit : mm)



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