

## S-1 Spectral Response(QE 0.05% at 1.06 $\mu\text{m}$ <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	$^{\circ}\text{C}$

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

Parameter		Min.	Typ.	Max.	Unit	
Cathode Sensitivity	Luminous(2856K)	10	20	-	$\mu\text{A}/\text{lm}$	
	Radiant at 800nm	-	1.9	-	$\text{mA}/\text{W}$	
	Red/White Ratio (with Toshiba IR-D80A)	R632	-	0.1	-	-
		R632-01	-	0.14	-	-
	Quantum Efficiency at 1.06 $\mu\text{m}$	R632	-	0.02	-	%
R632-01		-	0.05	-	%	
Anode Sensitivity	Luminous(2856K)	5	10	-	$\text{A}/\text{lm}$	
	Radiant at 800nm	-	950	-	$\text{A}/\text{W}$	
Gain		-	$5 \times 10^5$	-	-	
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

Electrode	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	Dy10	P
Ratio	1.5	1	1	1	1	1	1	1	1	1	1	

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

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# PHOTOMULTIPLIER TUBES R632, R632-01

Figure 1: Typical Spectral Response

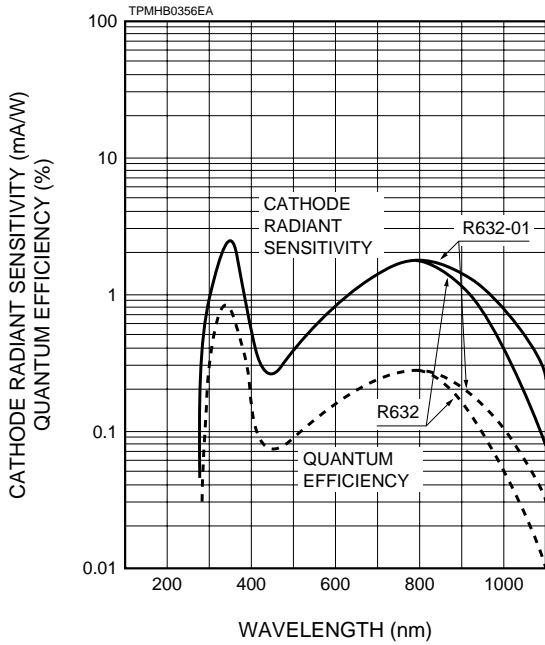


Figure 2: Typical Gain and Anode Dark Current

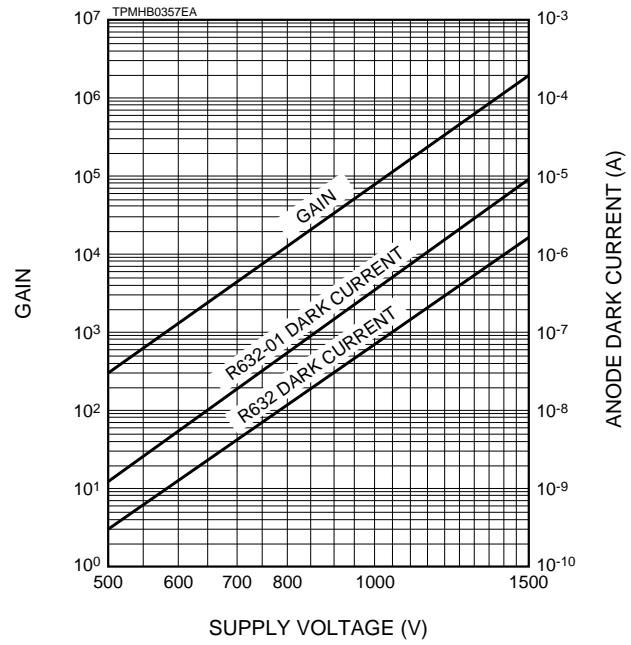


Figure 3: Typical Temperature Characteristics of Dark Current

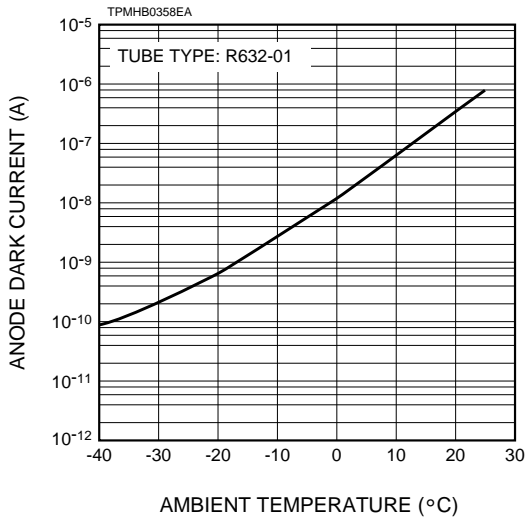
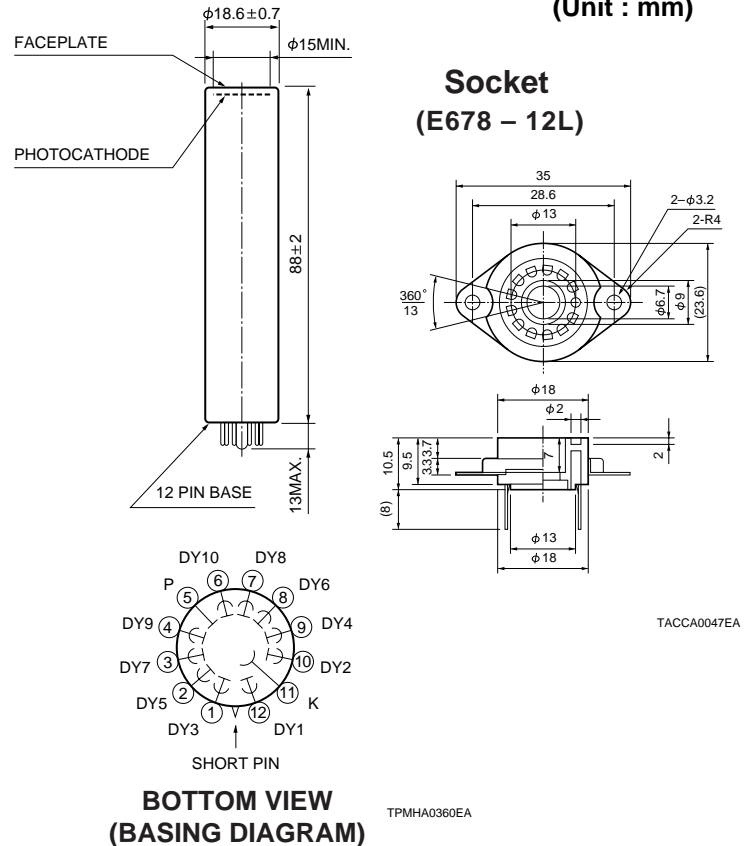


Figure 4: Dimensional Outline and Basing Diagram (Unit : mm)



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