

TECHNICAL INFORMATION

TENTATIVE

June 2009

R10533

For Scintillation counting, Fast time response

51mm (2 inch) Diameter, Bialkali Photocathode, 10-stage, Head-On Type,

GENERAL

Parameters		Ratings	Units
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Window Material		Borosilicate glass	-
Photocathode	Material	Bialkali	-
	Minimum Effective Area	46	mm dia.
Dynode Structure / Number of Stages		Linear Focused/ 10	-
Base		Temporary Base	-
Suitable Socket		E678-20A	-
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-80 to +50	°C

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Units
Supply Voltage	Between Anode and Cathode	2000	V
	Between Anode and Last Dynode	250	V
Average Anode Current		0.1	mA

CHARACTERISTICS (at 25 °C)

Parameters		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous(2856 K)	70	95	-	μA/lm
	Blue Sensitivity Index (Cs 5-58)	9	11	-	-
Anode Sensitivity	Luminous(2856 K)	-	400	-	A/lm
Gain		-	4.2x10 ⁶	-	-
Anode Dark Current (after 30 min. strage in darkness)		-	50	300	nA
Time Response	Anode Pulse Rise Time	-	2.0	-	ns
	Electron Transit Time	-	24	-	ns
	Transit Time Spread (FWHM)	-	280	-	ps
Pulse Linearity (+/-2% diviation)		-	50	-	mA

NOTE : Anode characteristics are measured with a voltage distribution ratio and supply voltage shown below.

STANDARD VOLTAGE DIVIDER AND SUPPLY VOLTAGE

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7(Acc)	Dy8	Dy9	Dy10	P
Ratio	1.3	4.8	1.5	1.5	1	1	1	1	1	1	1	1	1

Supply Voltage: 1750 V, K:Cathode, Dy:Dynode, P:Anode, G:Grid, Acc to be connected Dy7

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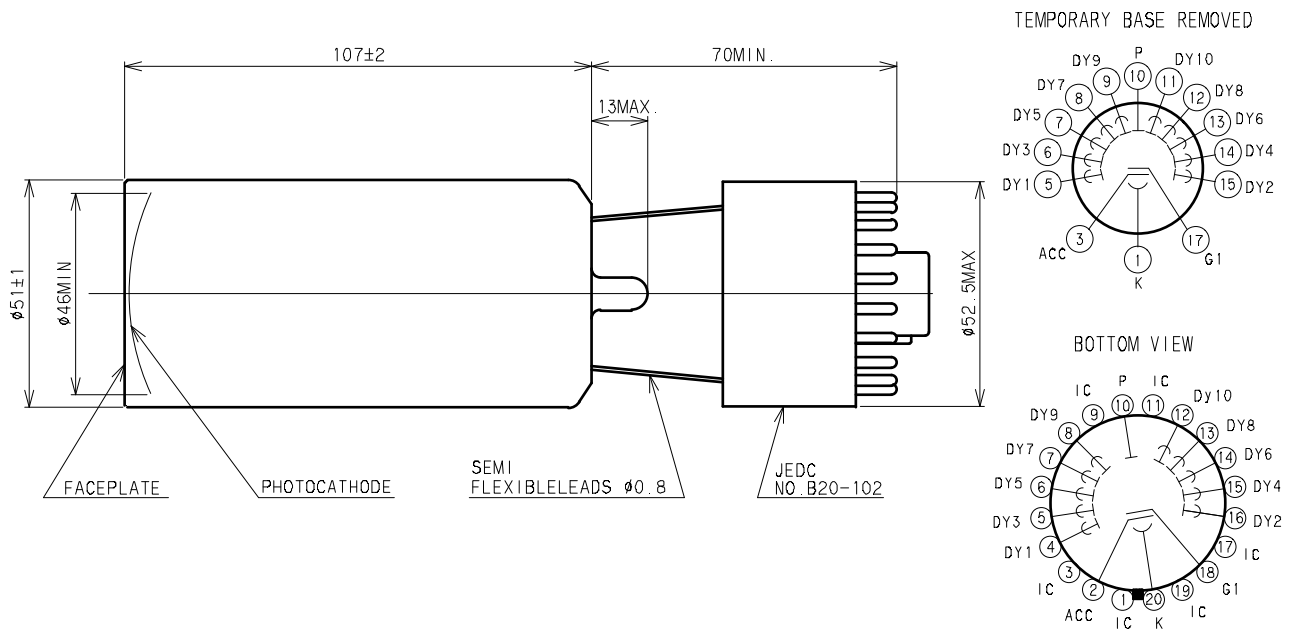


Figure 1: Dimensional Outline (Unit: mm)

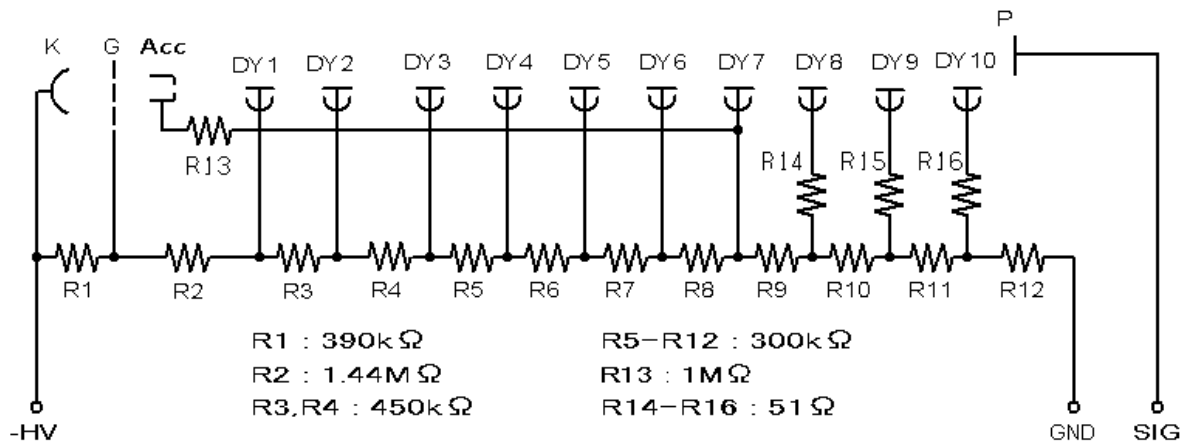


Figure 2: Recommend Voltage Divider Circuit

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