

HAMAMATSU

POSITION-SENSITIVE PHOTOMULTIPLIER TUBES R3292 SERIES

**28 (X) + 28 (Y) Crossed Wire Anode,
5 Inch Diameter, 12-Stage, Bialkali Photocathode, Head-On**

GENERAL

Parameter		Description/Value	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Photocathode	Material	Bialkali	—
	Minimum Effective Area	100	mm dia.
Window	Material	Borosilicate glass	—
	Shape	Plano-plano	—
Dynode	Structure	Proximity mesh	—
	Number of Stages	12	—
Anode	Number of Wires	28 (X) +28 (Y)	—

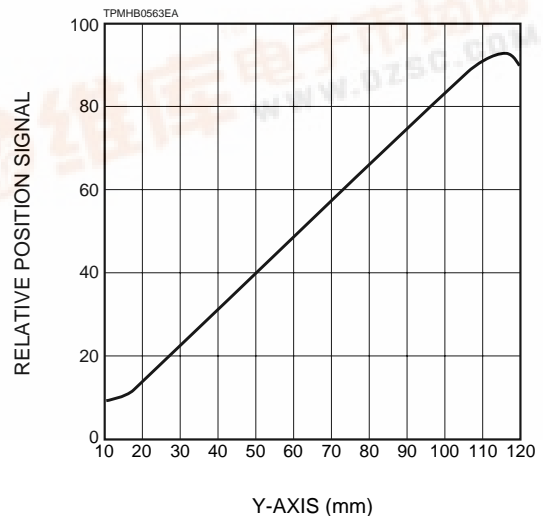
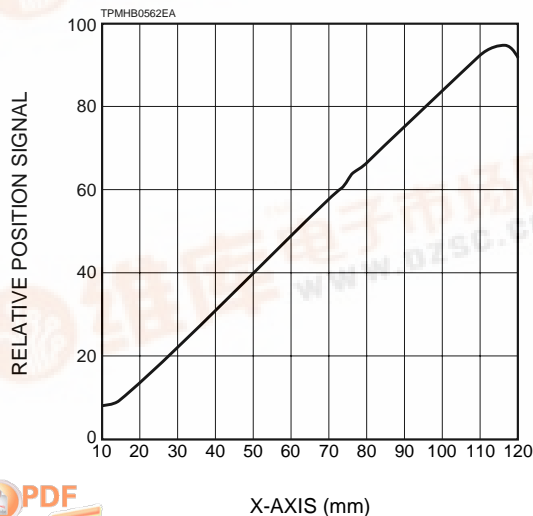
MAXIMUM RATINGS (Absolute Maximum Values)

Parameter	Value	Unit
Supply Voltage Between Anode and Cathode	1300	Vdc
Ambient Temperature	-80 to +50	°C

CHARACTERISTICS (at 25°C)

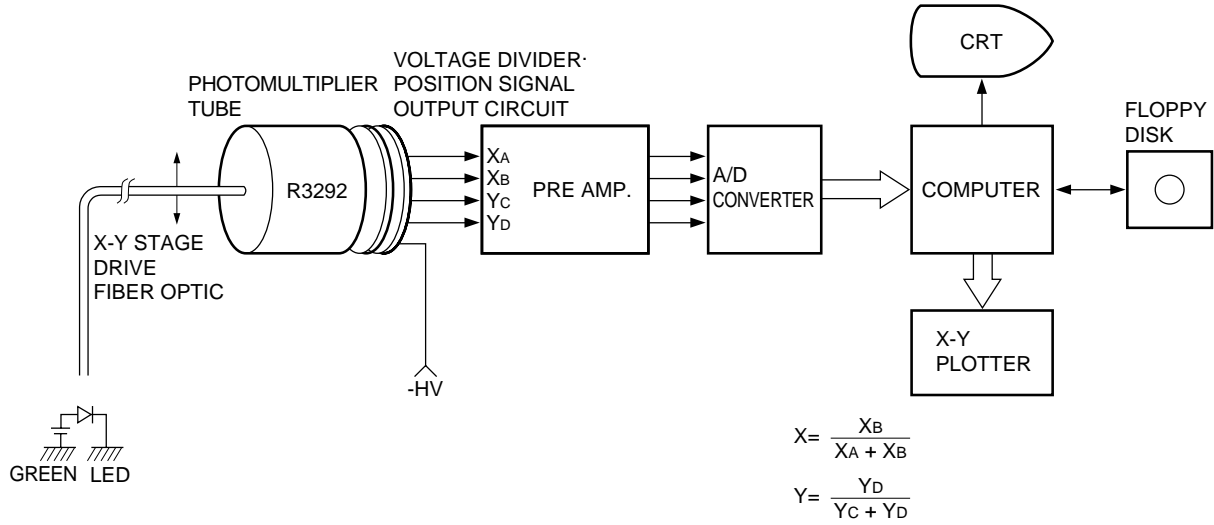
Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856K)	50	80	—	μA/lm
	Radiant at 420nm	—	77	—	mA/W
	Blue (CS 5-58 filter)	—	9.0	—	μA/lm-b
	Quantum Efficiency at 420nm	—	23	—	%
Anode Sensitivity	Luminous (2856K)	5	10	—	A/lm
	Radiant at 420nm	—	7.7×10^3	—	A/W
Gain		—	1.25×10^5	—	—
Anode Dark Current (after 30 min. storage in darkness)		—	40	150	nA

Figure 1: Position Signal Linearity



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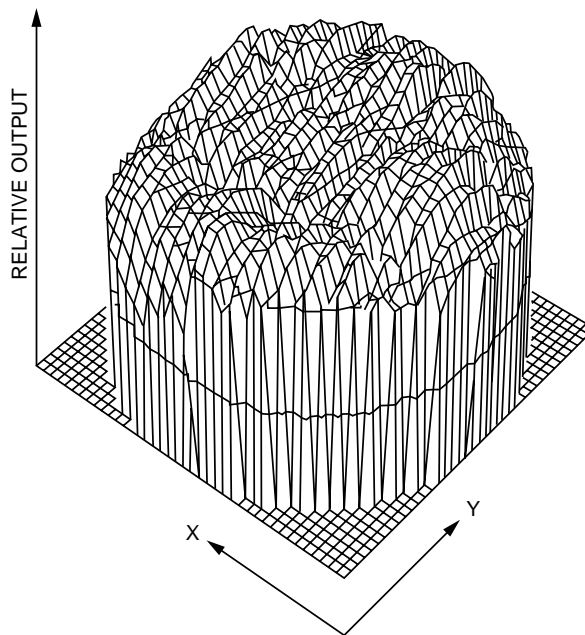
Figure 2: Block Diagram of Position Signal Linearity Measurement



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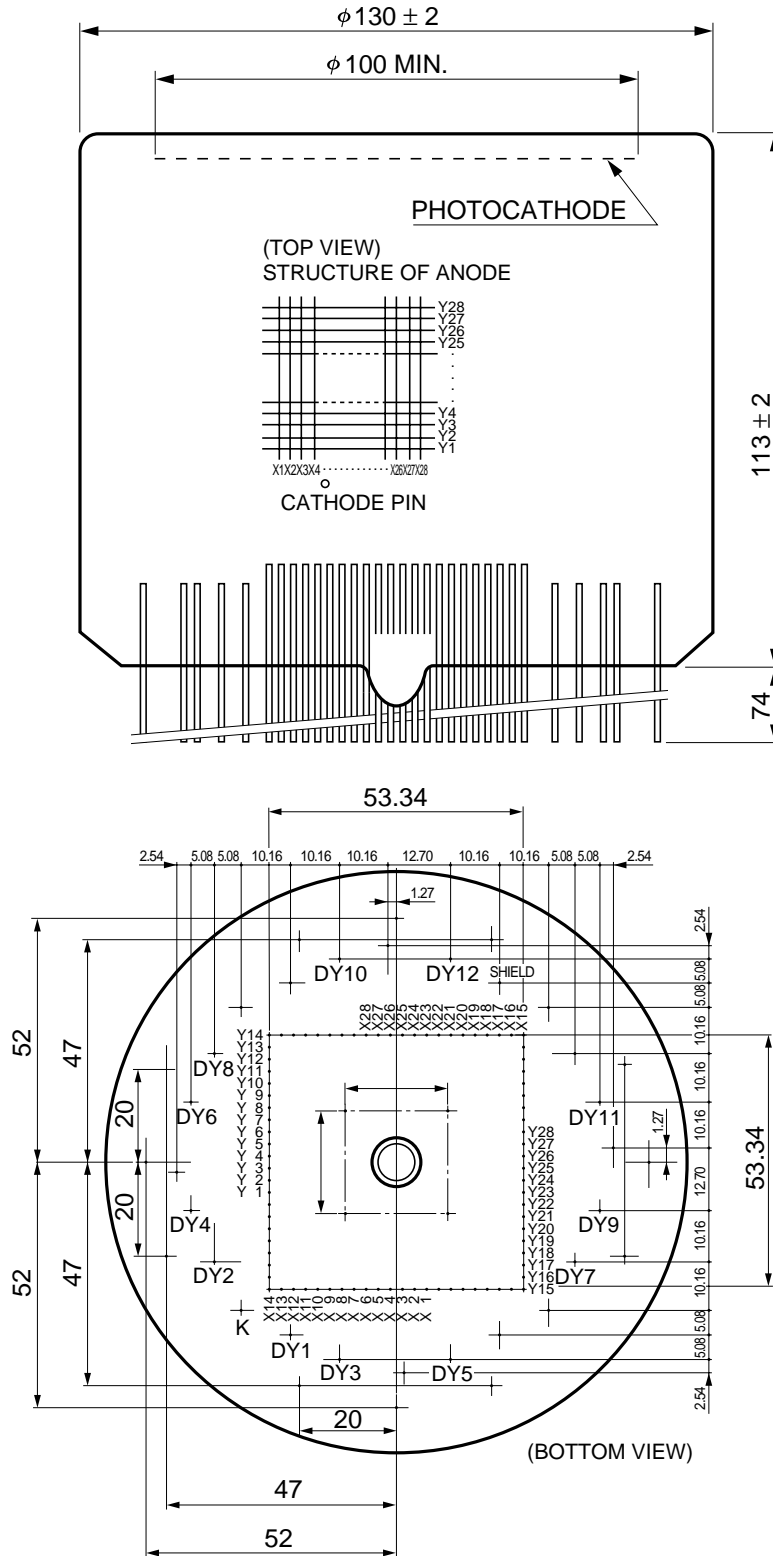
Figure 3: Uniformity Characteristics

SPOT DIA. : $\phi 1\text{mm}$
 SPOT INTERVAL: 2.5mm
 WIDTH : $\phi 100\text{mm}$
 WAVELENGTH : 420nm



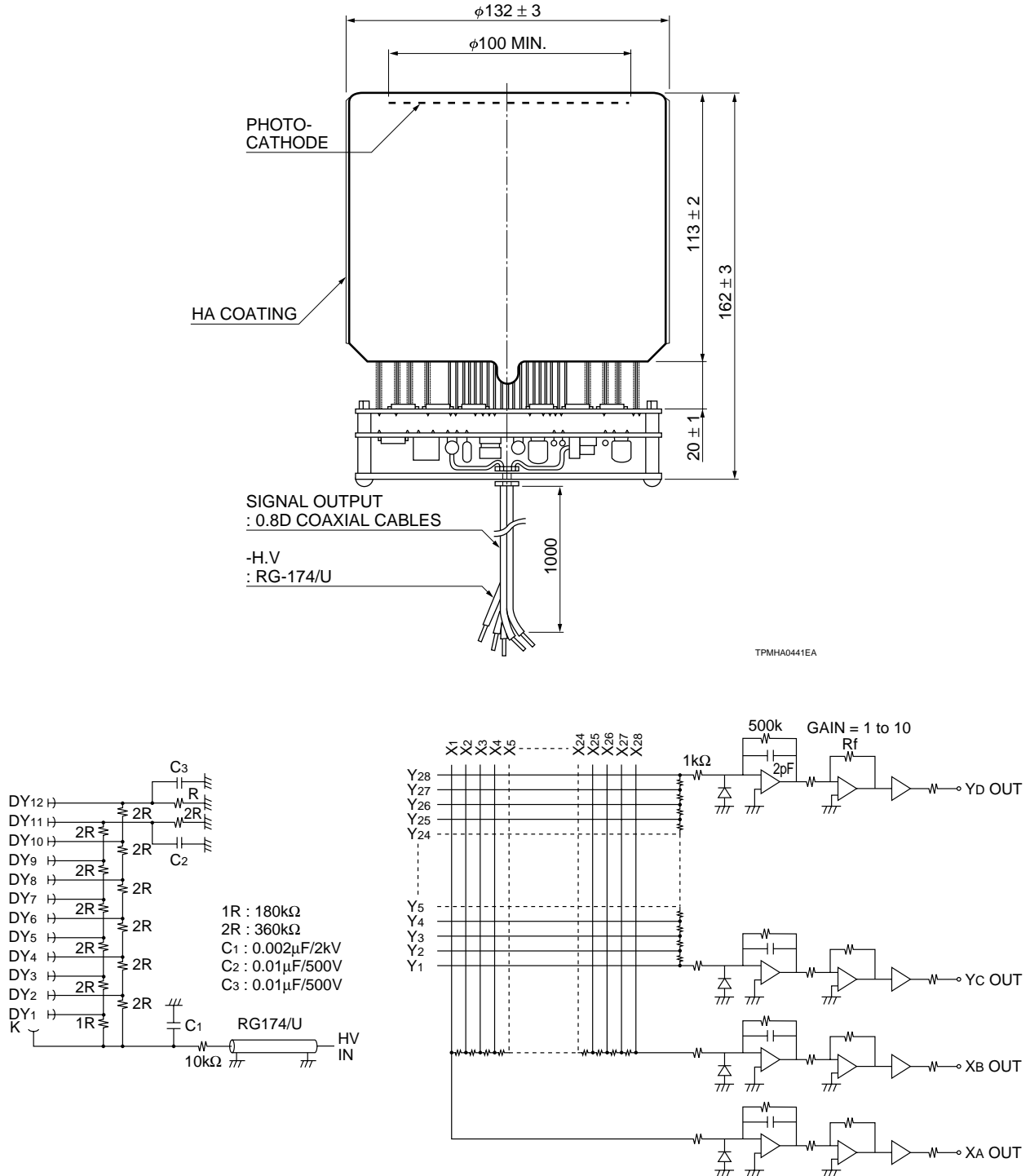
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Figure 4: R3292 Dimensional Outline (Unit: mm)



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Figure 7: R3292-05 Dimensional Outline, Voltage Divider Circuit, Position Signal Output Circuit and Preampifier (Unit: mm)



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TPMHC0178EA

HAMAMATSU

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