

HTV PHOTSENSITIVE DEVICES

**HTV-P201A
P202A
P227A**

**PHOTOCONDUCTIVE
CELLS
METAL-GLASS CASE
HIGH STABILITY**

TECHNICAL DATA SHEET

May 1967



HTV A-TYPE PHOTOCONDUCTIVE CELLS

FOR INDUSTRIAL
AND COMMERCIAL APPLICATIONS:

1. automatic camera aperture controls
2. photometry
3. smoke detectors
4. automatic TV brightness controls

HTV's A-type photoconductive cells are sealed in transistor type enclosures with a glass window, and are projection welded in an inert atmosphere.

Spectral response of this type cell matches the response of the human eye and its peak occurs at about 550 millimicrons.

Because of its high sensitivity and comparatively low γ in the wide illumination level, and its excellent temperature characteristics, it is useful for the precision measurement and control such as camera exposure meter, camera aperture control, photometry, and other control devices.

The data listed in this sheet are available from stock but we welcome your specification and usually find that reasonable variations can be supplied.

A-TYPE PHOTOCONDUCTIVE CELL DATA

Type Number	Dimensional Outline	Spectral Response ($m\mu$)	Maximum Voltage (Volts)	Power Dissipation (Milliwatts)	Cell Resistance (Megohms)	Resistance at 10 Lux (Kiloohms)	Resistance at 100 Lux (Kiloohms)	γ (at 1~100 Lux)
P201A	①	550±20	100	50	1.0	5.2	1.0	0.6~0.75
P202A	②	550±20	100	20	0.5	1.8	0.43	0.6~0.75
P227A	③	550±20	100	50	1.0	8.5	1.5	0.6~0.75

NOTES:

- ①... HTV Developmental type
- ②... For Dimensional Outline, see the Figure 1.
- ③... Absolute maximum values. The maximum ambient-temperature range for all cells is -30°C to +60°C.
- ④... In continuous service with sensitive surface of cell fully illuminated. These dissipation allowed for cell is decreased with elevated ambient-temperature, therefore, must not be exceeded about one-fourth of its value of maximum rating at 60°C.
- ⑤... At 25°C and specified voltage for each type. For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870°K. This characteristic is determined after the cell has been exposed for a period of 16 to 24 hours to about 500 lux illumination (white fluorescent light).
- ⑥... Minimum values. Measured 60 seconds after removal of incident-illumination level.
- ⑦... Resistance at the specific illumination listed above are the mean value of the production, the variation of the resistance in one lot is (average±50%) in the normal order, special specification available on request.
- ⑧... γ is the slope of the characteristic of conductance as a function of illumination.

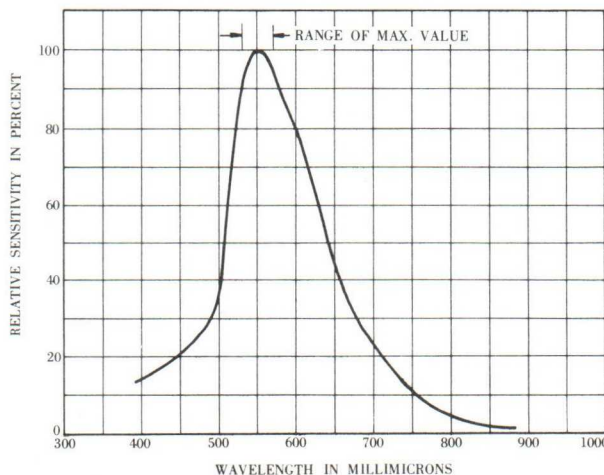
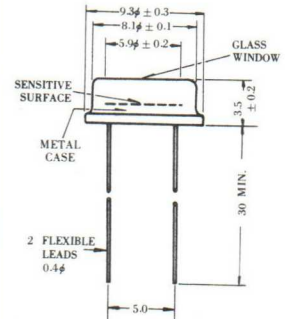
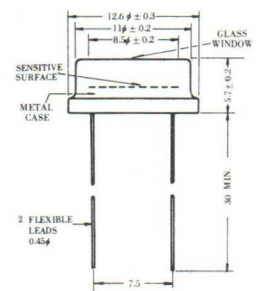


FIG.2 TYPICAL SPECTRAL RESPONSE CHARACTERISTIC

Outline ①



Outline ②



Outline ③

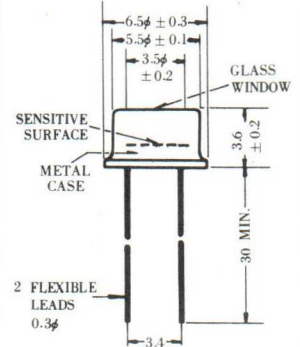
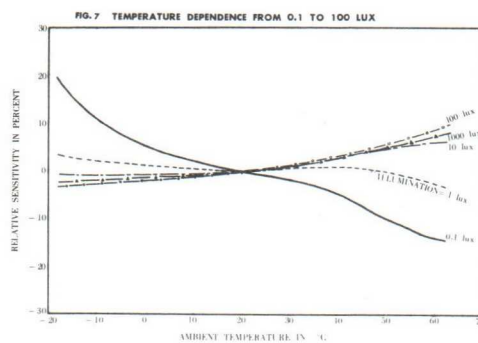
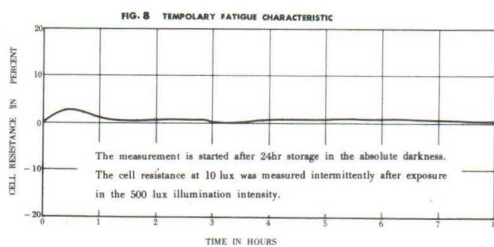
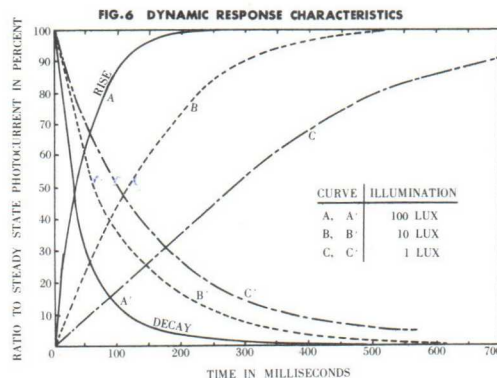
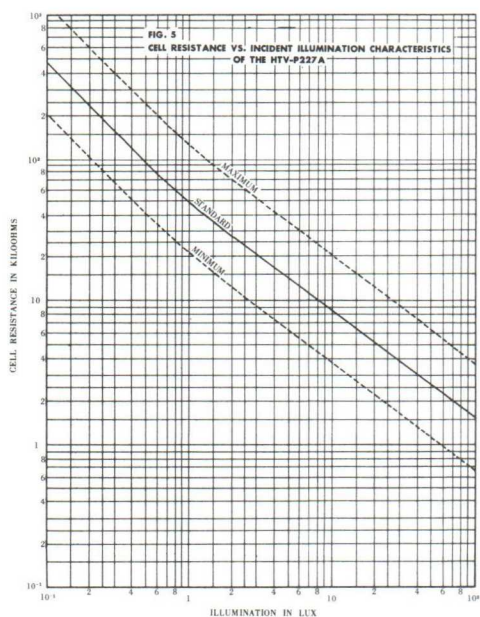
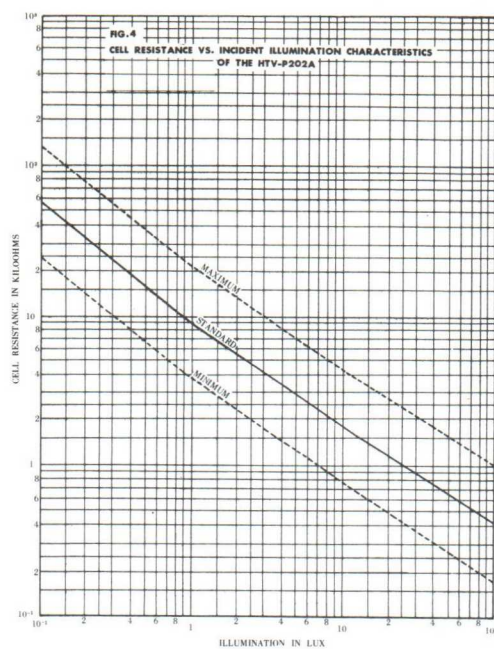
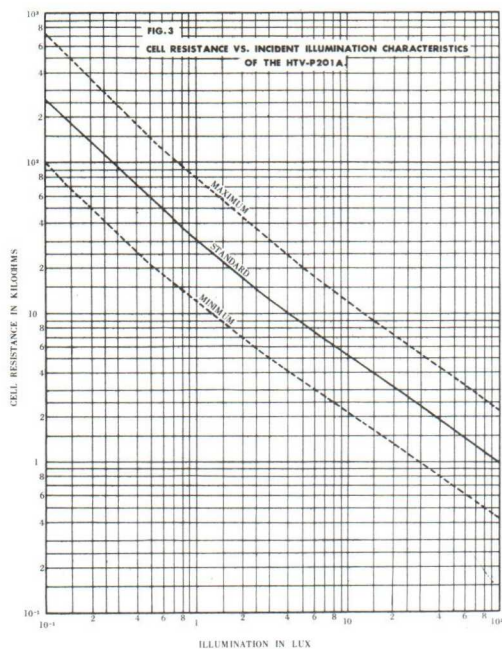


FIG.1 DIMENSIONAL
OUTLINES—DIMENS-
IONS IN MILLIMETER



HTV-P201A · P202A · P227A



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456, EBITSUKA-CHO, HAMAMATSU-CITY, JAPAN

PHONE: HAMAMATSU 54-5366 TELEX: 4225-185, JAPAN CABLE: HAMA TV HAMAMATSU

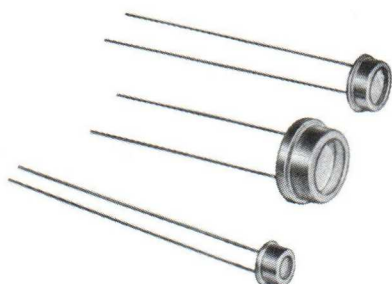
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Printed in
JAPAN

HTV PHOTSENSITIVE DEVICES

**HTV-P201B
P202B
P227B**
PHOTOCONDUCTIVE
CELLS
METAL-GLASS CASE
HIGH SPEED RESPONSE

TECHNICAL DATA SHEET May 1967



HTV B-TYPE PHOTOCONDUCTIVE CELLS

FOR INDUSTRIAL AND COMMERCIAL APPLICATIONS:

1. automatic camera aperture controls
2. photometry
3. smoke detectors
4. counting, sorting

HTV's B-type photoconductive cells are sealed in transistor type enclosures with a glass window, and are projection welded in an inert atmosphere.

Spectral response of this type cell has its peak about 550 m μ . The sensitivity is not so good as the type A, but the linearity and response speed is excellent, i.e. the γ value is from 0.9 to 1 up to 1000 lux, and the time required for the conductivity of the cell decay to one tenth of the steady state conductivity after removal of 100 lux illumination less than 50 msec.

Its eminent temperature characteristics and high speed allow the cell to be used in the automatic camera shutter, counting, sorting and other control devices.

The data listed in this sheet are available from stock but we welcome your specification and usually find that reasonable variations can be supplied.

B-TYPE PHOTOCONDUCTIVE CELL DATA

Type Number	Dimensional Outline	Spectral Response (m μ)	Maximum Voltage (Volts)	Power Dissipation (Milliwatts)	Cell Resistance	γ		
					0 Lux (Megohms)	10 Lux (Kiloohms)	100 Lux (Kiloohms)	(at 1-100 Lux)
P201B	①	550 \pm 20	200	100	10	45	5.8	0.9 ~ 1.0
P202B	②	550 \pm 20	200	300	5	35	4.5	0.9 ~ 1.0
P227B	③	550 \pm 20	200	50	10	100	14	0.9 ~ 1.0

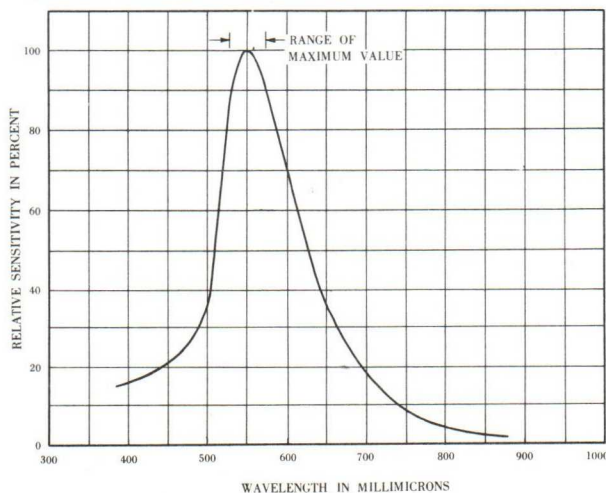
NOTES:

- ①... HTV Developmental type
- ②... For Dimensional Outline, see the Figure 1.
- ③... Absolute maximum values. The maximum ambient-temperature range for all cells is -30°C to +60°C
- ④... In continuous service with sensitive surface of cell fully illuminated. These dissipation allowed for cell is decreased with elevated ambient-temperature, therefore, must not be exceeded about one-fourth of its value of maximum rating at 60°C.
- ⑤... At 25°C and specified voltage for each type. For conditions where the light source is a tungsten-fila-

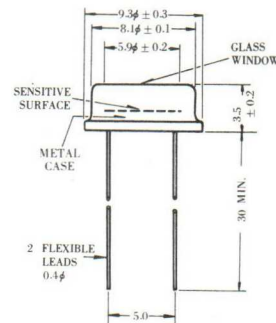
ment lamp operated at a color temperature of 2870°K. This characteristic is determined after the cell has been exposed for a period of 16 to 24 hours to about 500 lux illumination (white fluorescent light)

- ⑥... Minimum values. Measured 60 seconds after removal of incident-illumination level.
- ⑦... Resistance at the specific illumination listed above are the mean value of the production, the variation of the resistance in one lot is (average \pm 50%) in the normal order, special specification available on request.
- ⑧... γ is the slope of the characteristic of conductance as a function of illumination.

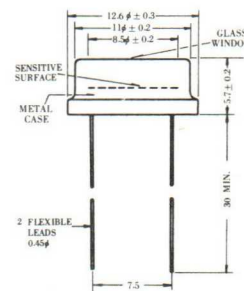
FIG. 2 TYPICAL SPECTRAL RESPONSE CHARACTERISTIC



Outline ①



Outline ②



Outline ③

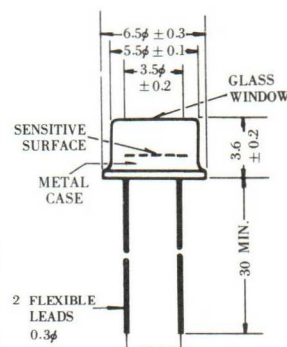
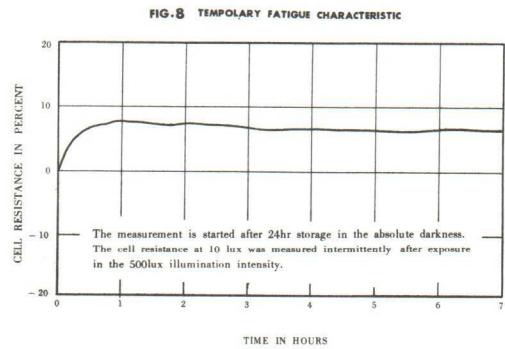
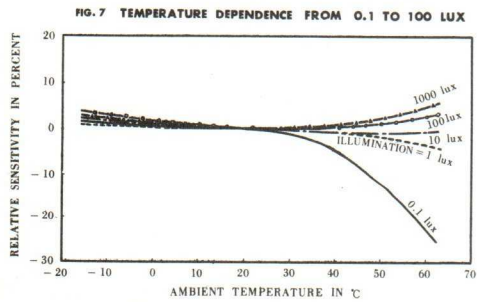
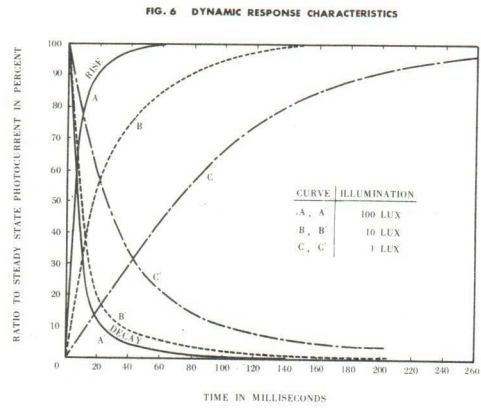
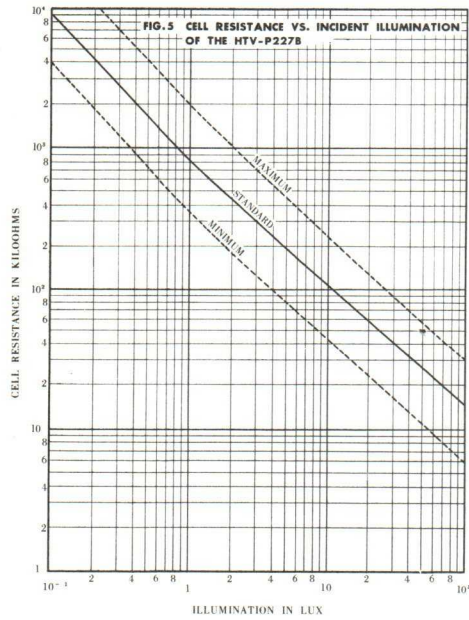
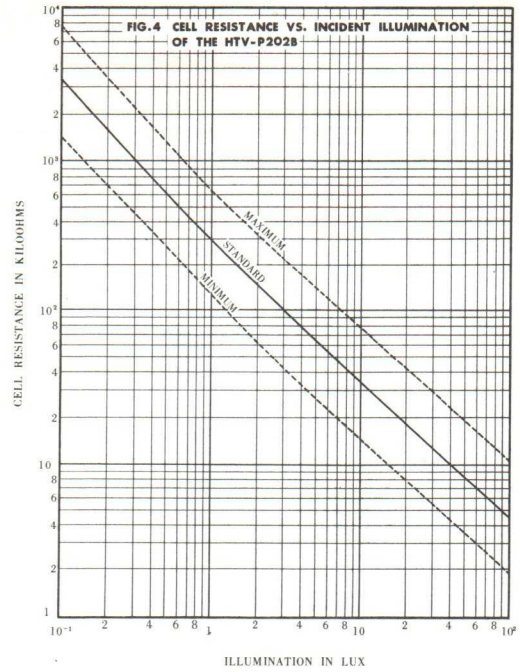
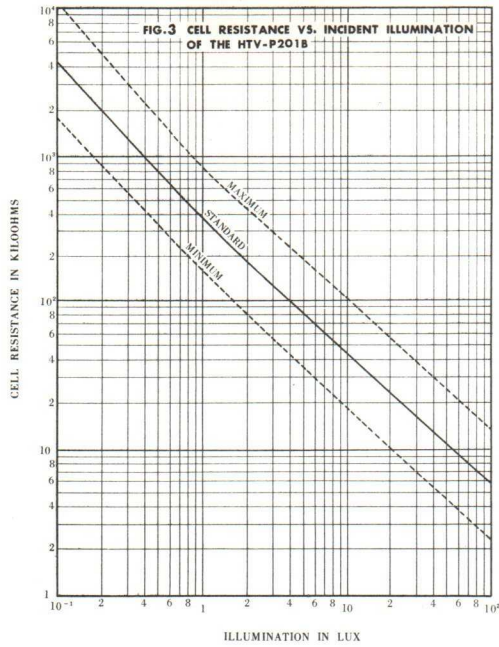


FIG. 1 DIMENSIONAL OUTLINES — DIMENSIONS IN MILLIMETER



HTV-P201B · P202B · P227B



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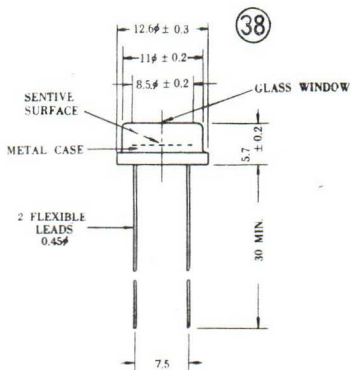
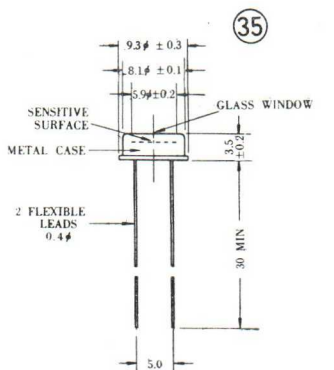
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外形寸法規格変更のお知らせ

外形寸法図のうち③⑤，③⑧を昭和42年より変更致しましたので，ご面倒ながらご訂正のほどお願い致します。
(昭和42年1月)



DIMENSIONS IN MILLIMETER (actual size)

浜松テレビ株式会社