

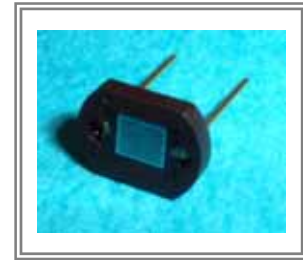
## Silicon Photo Diodes

### Model No. SD-7BA

Optoelectronic device

#### Features

- Wide range from the visible light to near-infrared light
- High spectral sensitivity
- Suitable for automatic controllers, spectrometers, and others
- High reliability



#### Absolute Maximum Ratings

Ta = 25

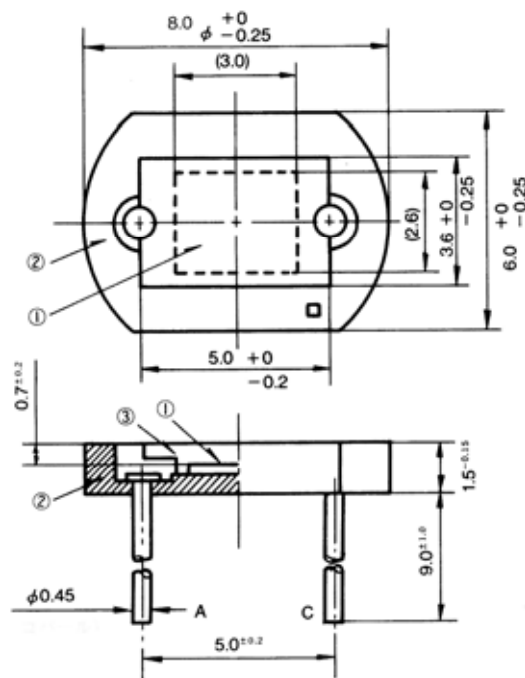
| Parameter             | Symbol         | Value     | Unit |
|-----------------------|----------------|-----------|------|
| DC Reverse Voltage    | V <sub>R</sub> | 20        | V    |
| Operating Temperature | Topr           | -20 ~ +60 |      |
| Storage Temperature   | Tstg           | -25 ~ +80 |      |

#### Electro-optical Characteristics

Ta = 25

| Parameter                              | Symbol          | MIN | TYP | MAX  | Unit     | Condition                                        |
|----------------------------------------|-----------------|-----|-----|------|----------|--------------------------------------------------|
| Sensitive Range                        | $\lambda$       | 320 |     | 1150 | nm       | Equivalent energy                                |
| Peak sensitive wavelength              | $\lambda_p$     |     | 870 |      | nm       | Equivalent energy                                |
| Short Circuit Current                  | I <sub>sc</sub> | 4.5 | 5.5 | 6.5  | $\mu A$  | 100Lx                                            |
| Dark current                           | I <sub>d</sub>  |     |     | 30   | pA       | V <sub>R</sub> =1V. RH 65%                       |
| Shortcircuit current temp. coefficient | $\beta_T$       |     | 0.2 | 0.3  | %/       | 100Lx                                            |
| Dark current temp. coefficient         | $\alpha_T$      |     | 4   | 5    | Times/10 | V <sub>R</sub> =1V. RH 65%                       |
| Terminal capacitance                   | C <sub>T</sub>  | 600 | 680 | 750  | pF       | V <sub>R</sub> =0V, f=1MHz                       |
| Spectral sensitivity                   | IR              |     | --  | --   | %        | $\lambda = 700\text{nm}$ , I <sub>sc</sub> ratio |

#### External Dimension (unit: mm)



Anode  
Cathode  
Resin

Active area: 5.92mm<sup>2</sup>

Package

Ceramic