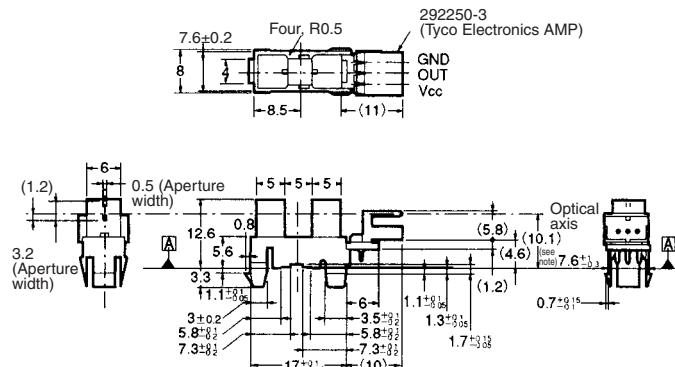


# Photomicrosensor (Transmissive) EE-SX4235A-P2

**⚠** Be sure to read *Precautions* on page 25.

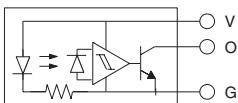
## Dimensions

**Note:** All units are in millimeters unless otherwise indicated.



**Note:** The dimension is specified by datum A only.

### Internal Circuit



Terminal No.	Name
V	Power supply (V <sub>CC</sub> )
O	Output (OUT)
G	Ground (GND)

Unless otherwise specified, the tolerances are as shown below.

Dimensions	Tolerance
3 mm max.	±0.3
3 < mm ≤ 6	±0.375
6 < mm ≤ 10	±0.45
10 < mm ≤ 18	±0.55
18 < mm ≤ 30	±0.65

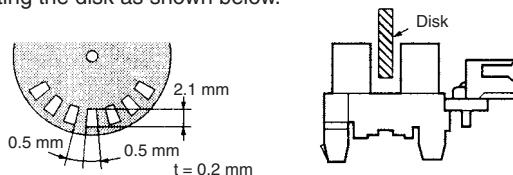
### Recommended Mating Connectors:

Tyco Electronics AMP 179228-3 (crimp connector)  
175778-3 (crimp connector)  
173977-3 (press-fit connector)

## Electrical and Optical Characteristics (Ta = 25°C, V<sub>CC</sub> = 5 V ±10%)

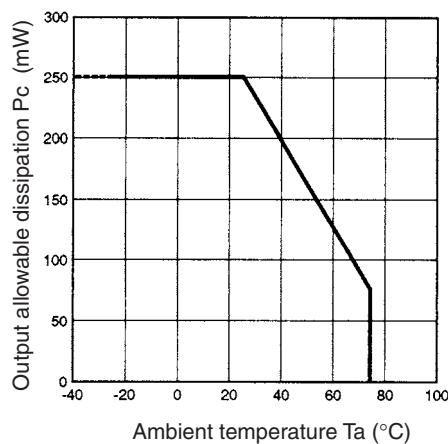
Item	Symbol	Value	Condition
Current consumption	I <sub>CC</sub>	16.5 mA max.	With and without incident
Low-level output voltage	V <sub>OL</sub>	0.35 V max.	I <sub>OUT</sub> = 16 mA with incident
High-level output voltage	V <sub>OH</sub>	(V <sub>CC</sub> x 0.9) V min.	V <sub>OUT</sub> = V <sub>CC</sub> without incident, R <sub>L</sub> = 47 kΩ
Response frequency	f	3 kHz min.	V <sub>OUT</sub> = V <sub>CC</sub> , R <sub>L</sub> = 47 kΩ (see note)

**Note:** The value of the response frequency is measured by rotating the disk as shown below.

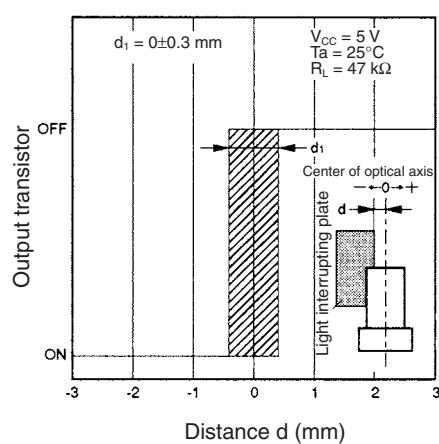


## ■ Engineering Data

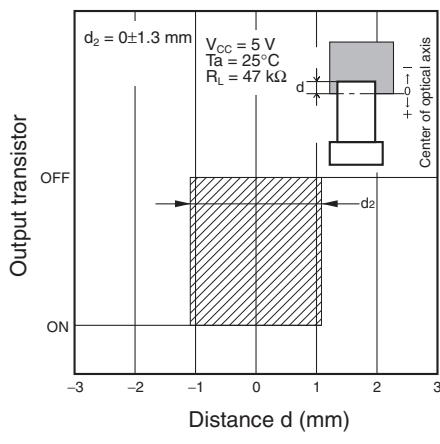
### Output Allowable Dissipation vs. Ambient Temperature Characteristics



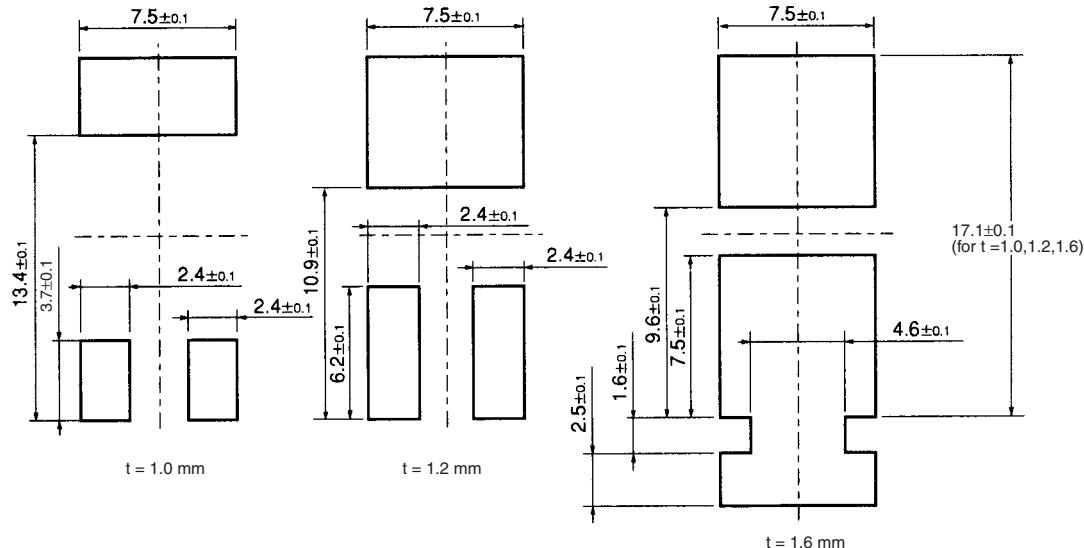
### Sensing Position Characteristics (Typical)



### Sensing Position Characteristics (Typical)



## ■ Recommended Mounting Holes



- When mounting the Photomicrosensor to a panel with a hole opened by pressing, make sure that the hole has no burrs. The mounting strength of the Photomicrosensor will decrease if the hole has burrs.
- When mounting the Photomicrosensor to a panel with a hole opened by pressing, be sure to mount the Photomicrosensor on the pressing side of the panel.
- The mounting strength of the Photomicrosensor will increase if the Photomicrosensor is mounted to a panel with a hole that is only a little larger than the size of the Photomicrosensor, in which case, however, it will be difficult to mount the Photomicrosensor to the panel. The mounting strength of the Photomicrosensor will decrease if the Photomicrosensor is mounted to a panel with a hole that is comparatively larger than the size of the Photomicrosensor, in which case, however, it will be easy to mount the Photomicrosensor to the panel. When mounting the Photomicrosensor to a panel, open an appropriate hole for the Photomicrosensor according to the application.
- After mounting the Photomicrosensor to any panel, make sure that the Photomicrosensor does not wobble.
- When mounting the Photomicrosensor to a molding with a hole, make sure that the edges of the hole are sharp enough, otherwise the Photomicrosensor may fall out.