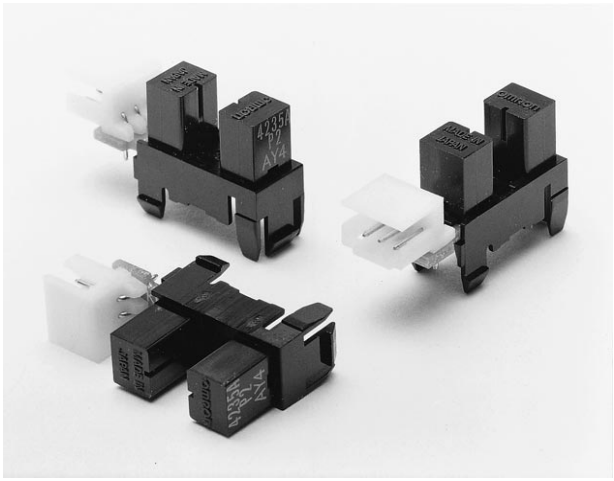
OMRON

Opto–Switch

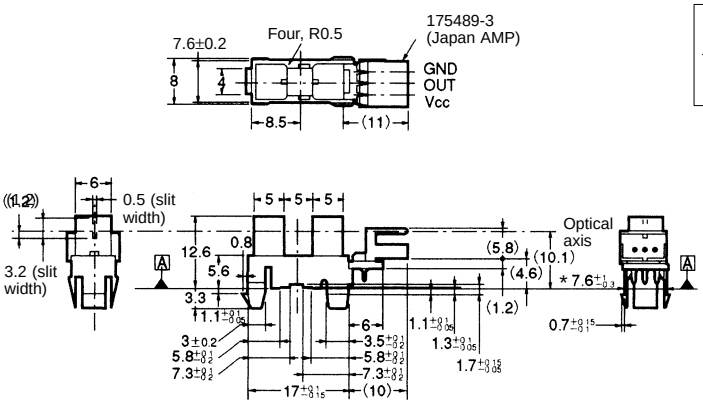
EE–SX4235A–P2

Transmissive

- Photo–IC output.
- Snap-in mounting model.
- Mounts to 1.0-, 1.2- and 1.6-mm-thick panels.
- High resolution with a 0.5-mm-wide sensing aperture.
- With a 5-mm-wide slot.
- Photo IC output signals directly connect to C-MOS and TTL.
- Connects to Japan AMP's CT-series connectors.

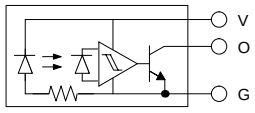


Dimensions



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

Internal Circuit



Terminal No.	Name
V	Supply voltage (Vcc)
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 Connectors:
Japan AMP 175778-3 (crimp-type connector)
173977-3 (press-fit connector)

Specifications

■ Absolute Maximum Ratings (Ta = 25°C)

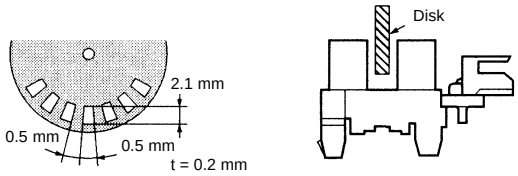
Item	Symbol	Rated value
Supply voltage	V_{CC}	7 V
Output voltage	V_{OUT}	28 V
Output current	I_{OUT}	16 mA
Permissible output dissipation	P_{OUT}	250 mW (see note)
Operating temperature	Topr	–25°C to 75°C
Storage temperature	Tstg	–40°C to 85°C
Soldering temperature	Tsol	---

Note: Refer to the temperature rating chart if the ambient temperature exceeds 25°C.

■ Electrical and Optical Characteristics (Ta = 25°C, V_{CC} = 5 V)

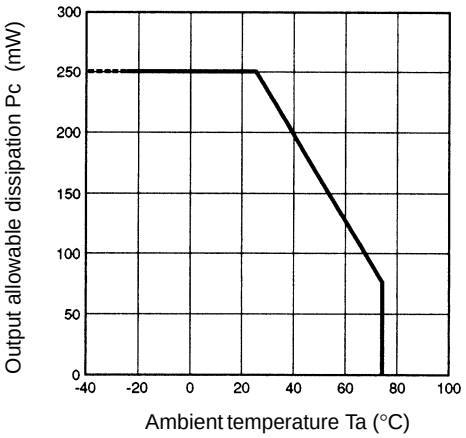
Item	Symbol	Value	Condition
Current consumption	I_{CC}	16.5 mA max.	With and without incident
Low-level output voltage	V_{OL}	0.35 V max.	I_{OUT} = 16 mA with incident
High-level output voltage	V_{OH}	(V_{CC} x 0.9) V min.	V_{OUT} = V_{CC} without incident, R_L = 47 kΩ
Response frequency	f	3 kHz min.	V_{OUT} = V_{CC}, R_L = 47 kΩ (see note)

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

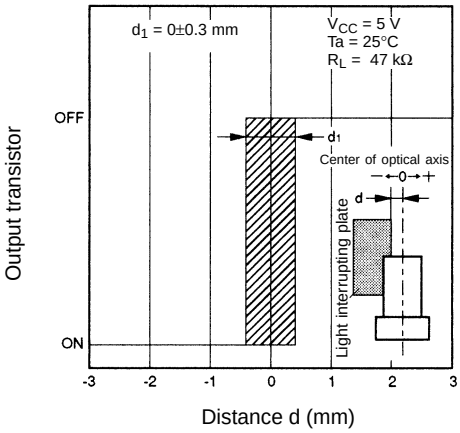


Engineering Data

Output Allowable Dissipation vs. Ambient Temperature Characteristics

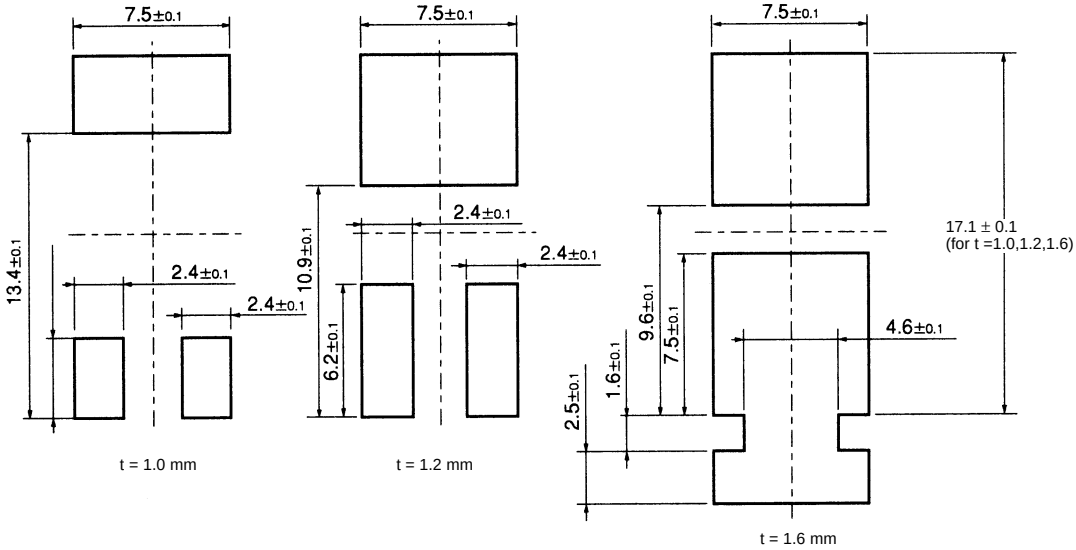


Sensing Position Characteristics (Typical)



■ Recommended Mounting Holes

(also applies to EE–SX1235A–P2)



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