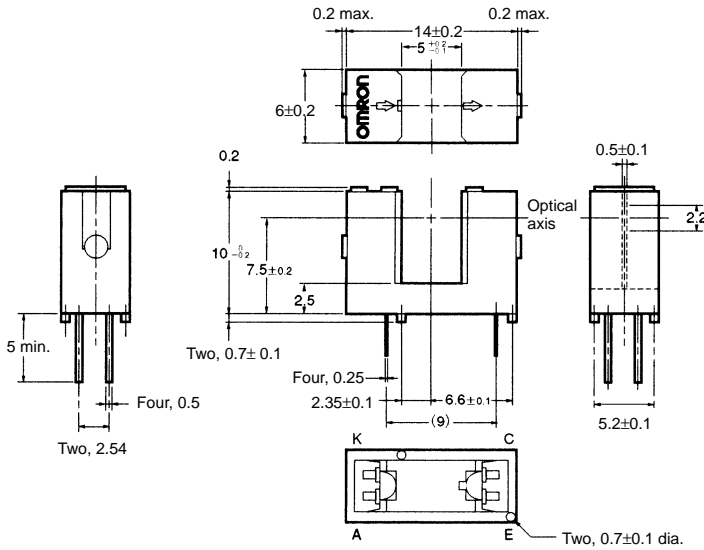
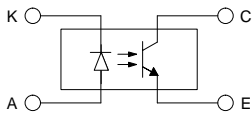


### ■ Dimensions

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



#### Internal Circuit



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

Terminal No.	Name
A	Anode
K	Cathode
C	Collector
E	Emitter

### ■ Features

- General-purpose model with a 5-mm-wide slot.
- PCB mounting type.
- High resolution with a 0.5-mm-wide aperture.

### ■ Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rated value
Emitter	Forward current	I <sub>F</sub> 50 mA (see note 1)
	Pulse forward current	I <sub>FP</sub> 1 A (see note 2)
	Reverse voltage	V <sub>R</sub> 4 V
Detector	Collector–Emitter voltage	V <sub>CEO</sub> 30 V
	Emitter–Collector voltage	V <sub>ECO</sub> ---
	Collector current	I <sub>C</sub> 20 mA
	Collector dissipation	P <sub>C</sub> 100 mW (see note 1)
	Operating	T <sub>opr</sub> -25°C to 95°C
Ambient temperature	Storage	T <sub>stg</sub> -30°C to 100°C
	Soldering temperature	T <sub>sol</sub> 260°C (see note 3)

- Note:**
1. Refer to the temperature rating chart if the ambient temperature exceeds 25°C.
  2. The pulse width is 10 μs maximum with a frequency of 100 Hz.
  3. Complete soldering within 10 seconds.

### ■ Electrical and Optical Characteristics (Ta = 25°C)

Item	Symbol	Value	Condition
Emitter	Forward voltage	V <sub>F</sub> 1.2 V typ., 1.5 V max.	I <sub>F</sub> = 30 mA
	Reverse current	I <sub>R</sub> 0.01 μA typ., 10 μA max.	V <sub>R</sub> = 4 V
	Peak emission wavelength	λ <sub>P</sub> 940 nm typ.	I <sub>F</sub> = 20 mA
Detector	Light current	I <sub>L</sub> 0.5 mA min., 14 mA max.	I <sub>F</sub> = 20 mA, V <sub>CE</sub> = 10 V
	Dark current	I <sub>D</sub> 2 nA typ., 200 nA max.	V <sub>CE</sub> = 10 V, 0 lx
	Leakage current	I <sub>LEAK</sub> ---	---
	Collector–Emitter saturated voltage	V <sub>CE (sat)</sub> 0.1 V typ., 0.4 V max.	I <sub>F</sub> = 20 mA, I <sub>L</sub> = 0.1 mA
	Peak spectral sensitivity wavelength	λ <sub>P</sub> 850 nm typ.	V <sub>CE</sub> = 10 V
Rising time	t <sub>r</sub> 4 μs typ.	V <sub>CC</sub> = 5 V, R <sub>L</sub> = 100 Ω, I <sub>L</sub> = 5 mA	
Falling time	t <sub>f</sub> 4 μs typ.	V <sub>CC</sub> = 5 V, R <sub>L</sub> = 100 Ω, I <sub>L</sub> = 5 mA	