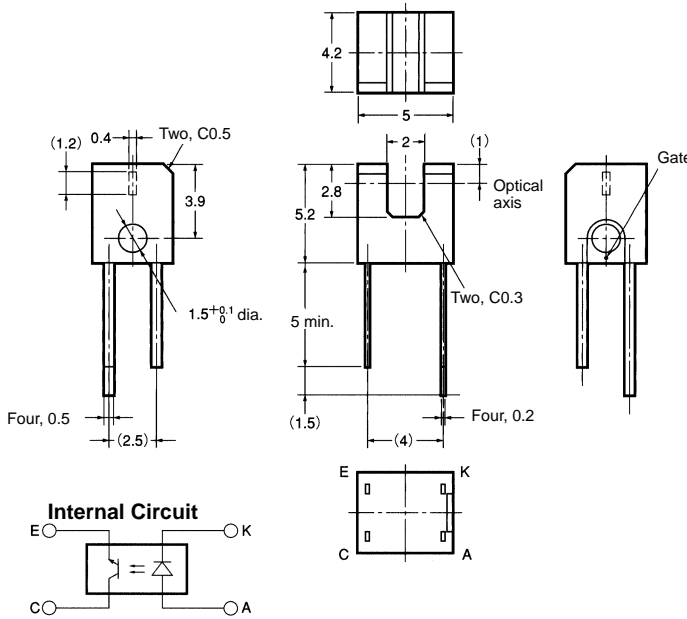


EE-SX1103

Photomicrosensor (Transmissive)

■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



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

Unless otherwise specified, the tolerances are ± 0.2 mm.

■ Features

- Ultra-compact with a sensor width of 5 mm and a slot width of 2 mm.
- PCB mounting type.
- High resolution with a 0.4-mm-wide aperture.

■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Rated value
Emitter	Forward current	I_F 50 mA (see note 1)
	Pulse forward current	I_{FP} ---
	Reverse voltage	V_R 5 V
Detector	Collector–Emitter voltage	V_{CEO} 30 V
	Emitter–Collector voltage	V_{ECO} 4.5 V
	Collector current	I_C 30 mA
	Collector dissipation	P_C 80 mW (see note 1)
Ambient temperature	Operating	T_{opr} -25°C to 85°C
	Storage	T_{stg} -30°C to 100°C
Soldering temperature	T_{sol}	260°C (see note 2)

- Note:**
1. Refer to the temperature rating chart if the ambient temperature exceeds 25°C .
 2. Complete soldering within 3 seconds.

■ Electrical and Optical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Value	Condition
Emitter	Forward voltage	V_F 1.3 V typ., 1.6 V max.	$I_F = 50$ mA
	Reverse current	I_R 10 μA max.	$V_R = 5$ V
	Peak emission wavelength	λ_P 950 nm typ.	$I_F = 50$ mA
Detector	Light current	I_L 0.5 mA min.	$I_F = 20$ mA, $V_{CE} = 5$ V
	Dark current	I_D 500 nA max.	$V_{CE} = 10$ V, 0 lx
	Leakage current	I_{LEAK} ---	---
	Collector–Emitter saturated voltage	$V_{CE}(\text{sat})$ 0.4 V max.	$I_F = 20$ mA, $I_L = 0.3$ mA
	Peak spectral sensitivity wavelength	λ_P 800 nm typ.	$V_{CE} = 5$ V
Rising time	t_r 10 μs typ.	$V_{CC} = 5$ V, $R_L = 100$ Ω , $I_F = 20$ mA	
Falling time	t_f 10 μs typ.	$V_{CC} = 5$ V, $R_L = 100$ Ω , $I_F = 20$ mA	