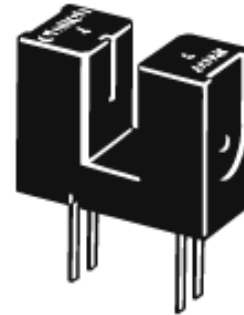


Transmissive SX1 series

EE-SX1071 Photomicrosensor (Transmissive)

- General-purpose model with a 3.4-mm-wide slot.
- PCB mounting type.
- High resolution with a 0.5-mm-wide aperture.

RoHS



Absolute Maximum Ratings (Ta = 25°C)

Item		Symbol	Rated value
Emitter	Forward current	I _F	50mA (see note 1)
	Pulse forward current	I _{FP}	1A (see note 2)
	Reverse voltage	V _R	4V
Detector	Collector-Emitter voltage	V _{CEO}	30V
	Emitter-Collector voltage	V _{ECO}	---
	Collector current	I _C	20mA
	Collector dissipation	P _C	100mW (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 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.

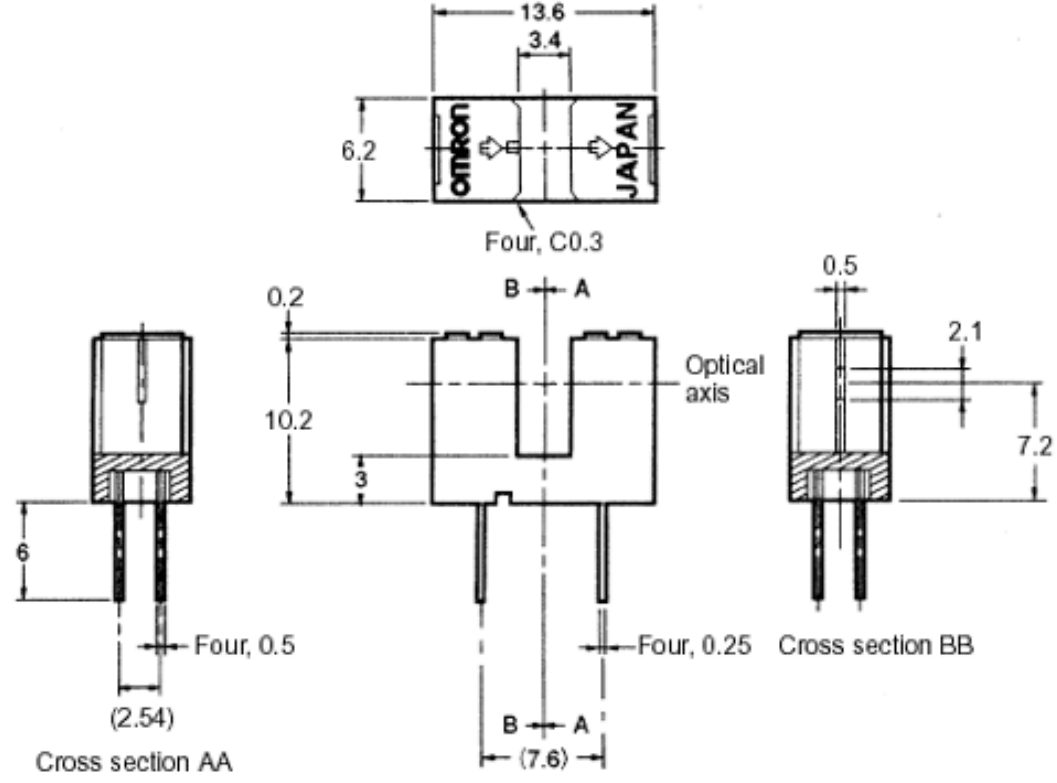
Electrical and Optical Characteristics (Ta = 25°C)

Item		Symbol	Value	Condition
Emitter	Forward voltage	V_F	1.2 V typ., 1.5 V max.	$I_F = 30\text{mA}$
	Reverse current	I_R	0.01 μA typ., 10 μA max.	$V_R = 4\text{V}$
	Peak emission wavelength	λ_P	940 nm typ.	$I_F = 20\text{mA}$
Detector	Light current	I_L	0.5 mA min., 14 mA max.	$I_F = 20\text{ mA},$ $V_{CE} = 10\text{V}$
	Dark current	I_D	2 nA typ., 200 nA max.	$V_{CE} = 10\text{ V},$ 0 lx
	Leakage current	I_{LEAK}	---	---
	Collector-Emitter saturated voltage	$V_{CE}(\text{sat})$	0.1 V typ., 0.4 V max.	$I_F = 20\text{ mA},$ $I_L = 0.1\text{mA}$
	Peak spectral sensitivity wavelength	λ_P	850 nm typ.	$V_{CE} = 10\text{V}$
Rising time		t_r	4 μs typ.	$V_{CC} = 5\text{V},$ $R_L = 100\Omega,$ $I_L = 5\text{mA}$
Falling time		t_f	4 μs typ.	$V_{CC} = 5\text{V},$ $R_L = 100\Omega,$ $I_L = 5\text{mA}$

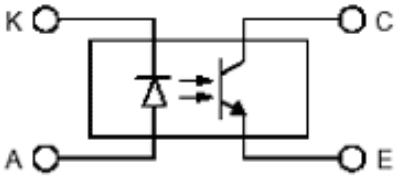
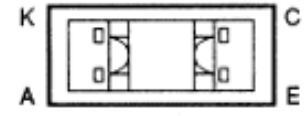
Terminal No.	Name
A	Anode
K	Cathode
C	Collector
E	Emitter

Unless otherwise specified, the tolerances are as shown below.

Dimensions	Tolerance
3 mm max.	± 0.3
$3 < \text{mm} \leq 6$	± 0.375
$6 < \text{mm} \leq 10$	± 0.45
$10 < \text{mm} \leq 18$	± 0.55
$18 < \text{mm} \leq 30$	± 0.65



Internal Circuit



Note: All units are in millimeters unless otherwise indicated.