

阅读申明

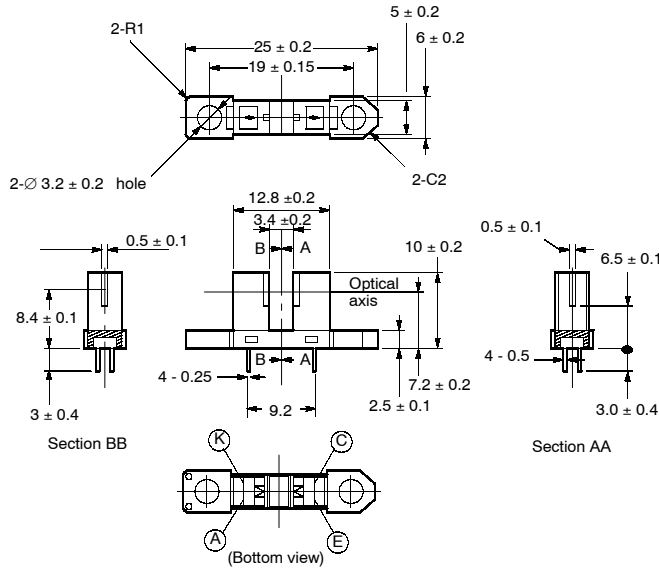
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Read Statement

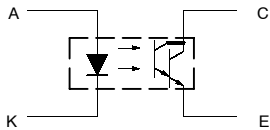
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■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



Internal Circuit



Unless otherwise specified, the tolerances are ±0.2 mm.

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

■ Features

- 0.5-mA output min. with only 1-mA forward LED current.
- Mounting tabs to secure EE-SX2088 to PCB.
- Best suited to drive CMOS IC.

■ Absolute Maximum Ratings (Ta = 25°C)

Item		Symbol	Rated value
Emitter	Forward current	I _F	50 mA (see note 1)
	Pulse forward current	I _{FP}	1 A (see note 2)
	Reverse voltage	V _R	4 V
Detector	Collector-Emitter voltage	V _{CEO}	35 V
	Emitter-Collector voltage	V _{ECO}	---
	Collector current	I _C	20 mA
	Collector dissipation	P _C	100 mW (see note 1)
Ambient temperature	Operating	T _{opr}	-25°C to 85°C
	Storage	T _{stg}	-30°C to 100°C

- 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.

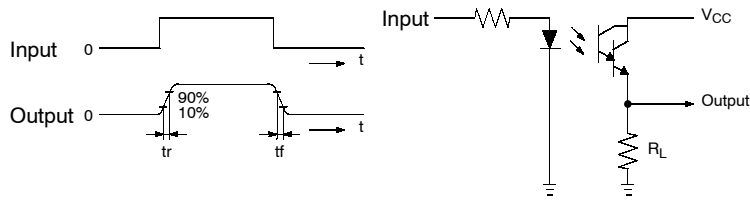
■ Ordering Information

Description	Part number
Photomicrosensor (Transmissive)	EE-SX2088

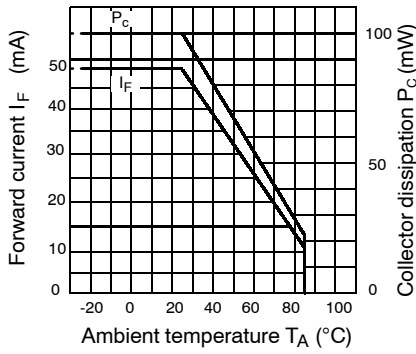
■ Electrical and Optical Characteristics (Ta = 25°C)

Item		Symbol	Value	Condition
Emitter	Forward voltage	V _F	1.2 V typ.; 1.4 V max.	I _F = 20mA
	Reverse current	I _R	0.01 μA typ.; 10 μA max.	V _R = 4 V
	Peak emission wavelength	λ _{p(L)}	940 nm typ.	I _F = 20 mA
Detector	Dark current	I _D	2 nA typ.; 1000 nA max.	V _{CE} = 10 V 0 /x
	Peak spectral sensitivity wavelength	λ _{p(P)}	850 nm typ.	V _{CE} = 5 V
Combination	Light current (collector current)	I _L	0.5 to 20 mA	I _F = 1 mA V _{CE} = 2 V
	Collector-emitter saturated voltage	V _{CE (sat)}	0.75 V typ.; 1 V max.	I _F = 2 mA I _L = 0.5 mA
	Rising time*	t _r	70 μs typ.	V _{CC} = 2 V I _L = 2 mA
	Falling time*	t _f	70 μs typ.	R _L = 100 Ω

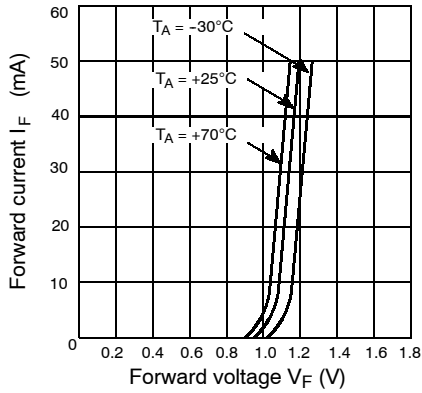
*The illustrations on the following page show the rising time, t_r, and the falling time, t_f.



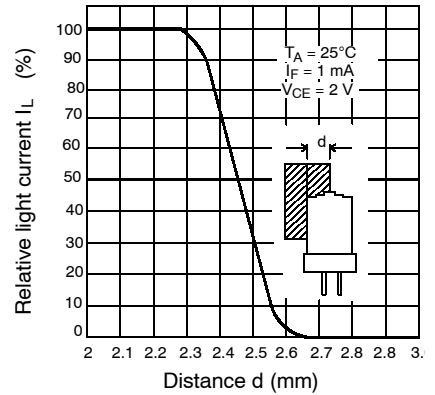
Engineering Data
Temperature Characteristics



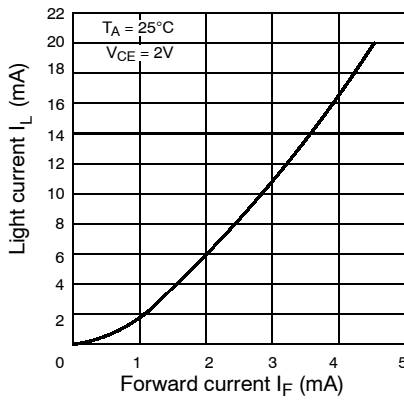
Input Characteristics (Typical)



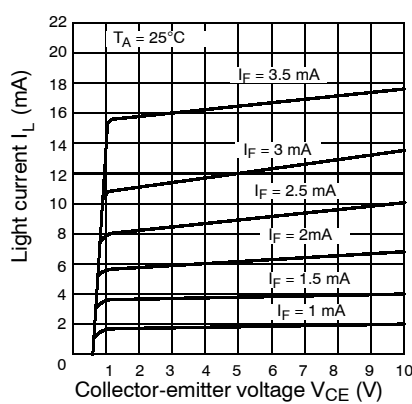
Sensing Position Characteristics (Typical)



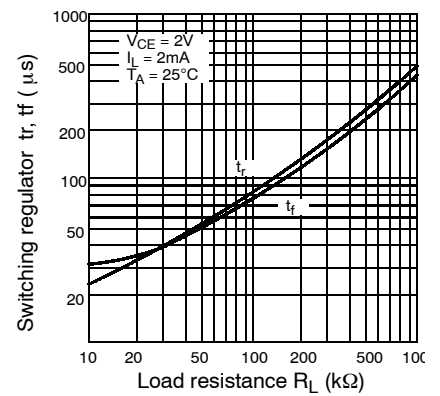
Input/output Characteristics (Typical)



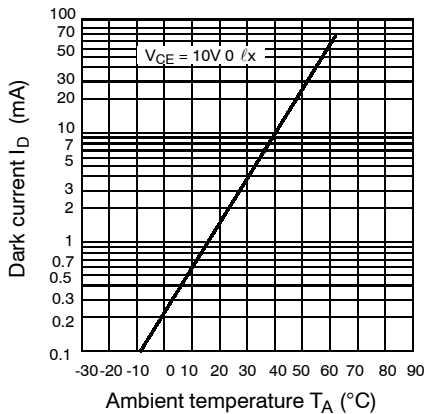
Output Characteristics (Typical)



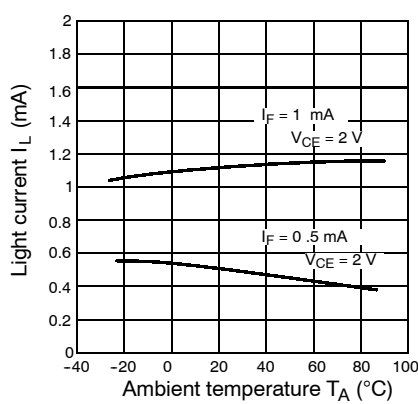
Response Time vs Load Resistance Characteristics (Typical)



Dark Current Temperature Dependency (Typical)



Light Current Temperature Dependency (Typical)



NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

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