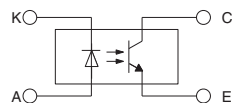
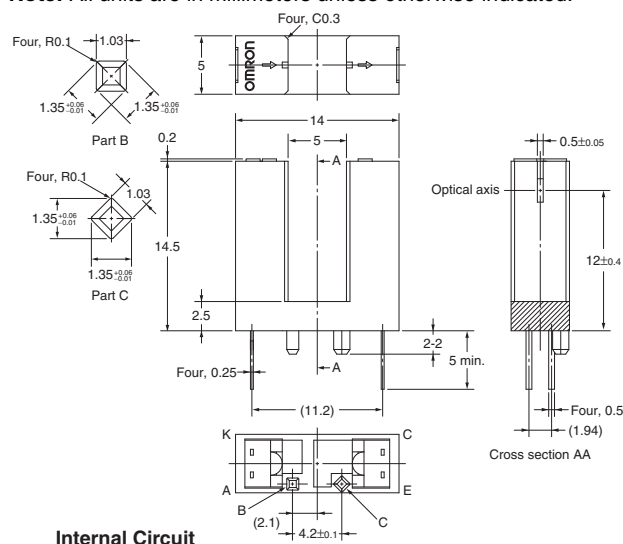


Photomicrosensor (Transmissive) EE-SX1115

■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



Unless otherwise specified, the tolerances are as shown below.

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

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

■ Features

- 14.5-mm-tall model with a deep 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_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}	30 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
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 μ s maximum with a frequency of 100 Hz.
3. Complete soldering within 10 seconds.

■ Ordering Information

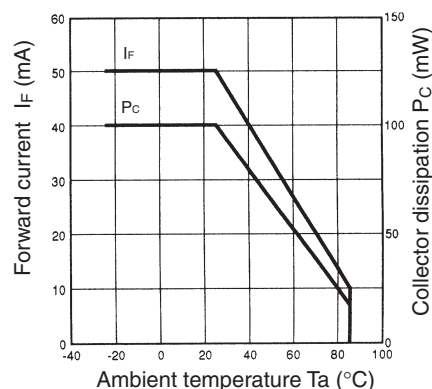
Description	Model
Photomicrosensor (transmissive)	EE-SX1115

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

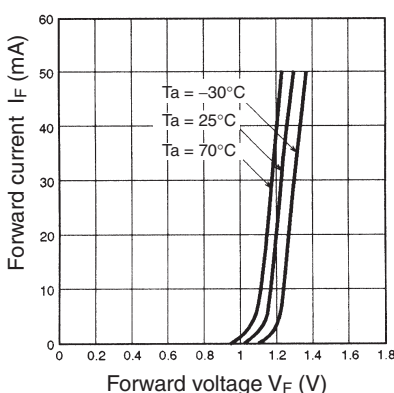
Item		Symbol	Value	Condition
Emitter	Forward voltage	V_F	1.2 V typ., 1.5 V max.	$I_F = 30 \text{ mA}$
	Reverse current	I_R	0.01 μA typ., 10 μA max.	$V_R = 4 \text{ V}$
	Peak emission wavelength	λ_P	940 nm typ.	$I_F = 20 \text{ mA}$
Detector	Light current	I_L	0.5 mA min., 14 mA max.	$I_F = 20 \text{ mA}$,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

■ Engineering Data

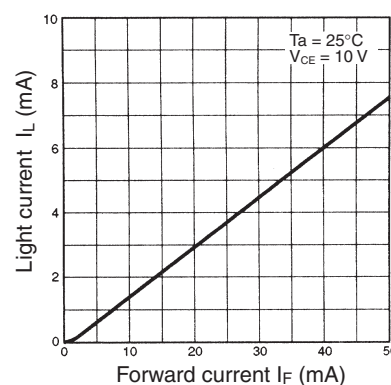
Forward Current vs. Collector Dissipation Temperature Rating



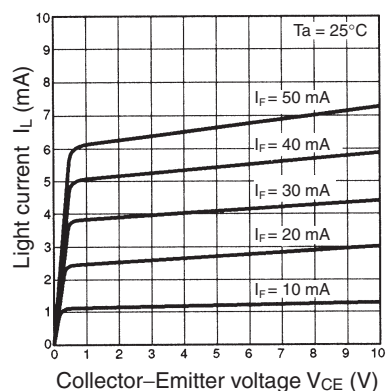
Forward Current vs. Forward Voltage Characteristics (Typical)



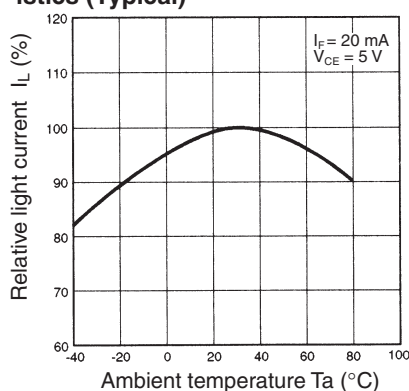
Light Current vs. Forward Current Characteristics (Typical)



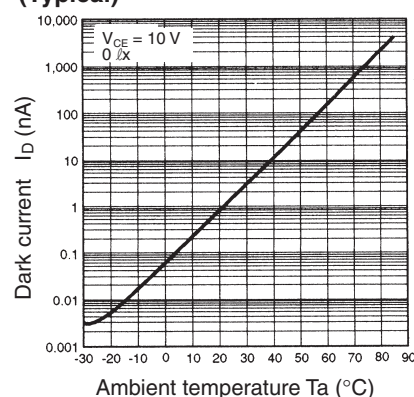
Light Current vs. Collector-Emitter Voltage Characteristics (Typical)



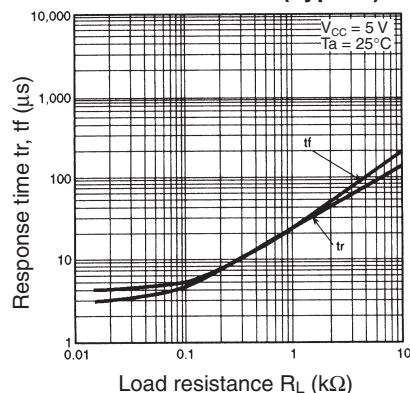
Relative Light Current vs. Ambient Temperature Characteristics (Typical)



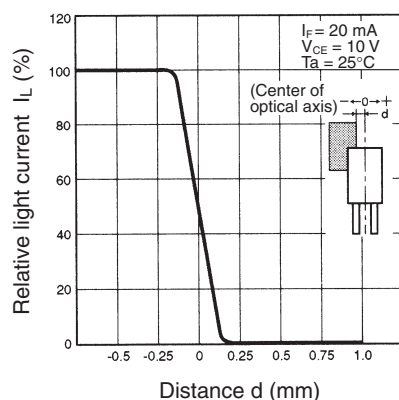
Dark Current vs. Ambient Temperature Characteristics (Typical)



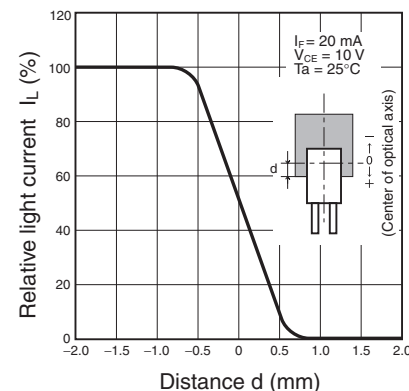
Response Time vs. Load Resistance Characteristics (Typical)



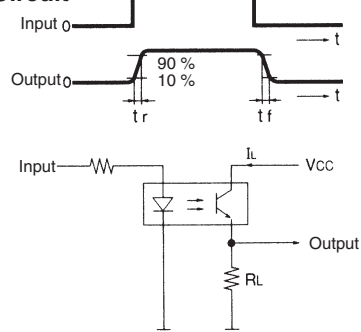
Sensing Position Characteristics (Typical)



Sensing Position Characteristics (Typical)



Response Time Measurement Circuit



A large grid of small, faint, repeating geometric patterns, likely a decorative background or a placeholder for a complex image. The patterns are arranged in a regular, repeating fashion across the entire page, creating a textured, woven appearance. The colors are very light, blending into the white background, which gives it a subtle, watermark-like quality. The patterns themselves are composed of simple lines and shapes, possibly representing a stylized textile or a digital mosaic.

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To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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55 E. Commerce Drive, Suite B
Schaumburg, IL 60173

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