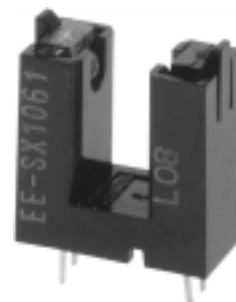


EE-SX1061

Phototransistor Version with High Optical Axis (10.3 mm)

- 4.6-mm wide slot
- High I_L output current with $I_F = 10$ mA
- Long life and high reliability with infrared LED



Ordering Information

Appearance	Sensing method	Slot width	Slot depth	Sensing object	Output configuration	Weight	Part number
	Transmissive	4.6 mm	8.8 mm	Opaque, 2-mm dia. min.	Phototransistor	Approx. 0.7 g	EE-SX1061

Specifications

■ ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ (77°F))

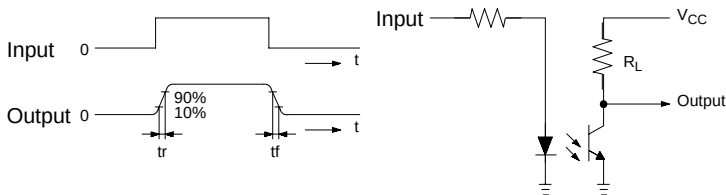
Item		Symbol	Rated value
Input	Forward current	I_F	50 mA*
	Reverse voltage	V_R	4 V
Output	Collector-emitter voltage	V_{CEO}	30 V
	Collector current	I_C	20 mA
	Collector dissipation	P_C	100 mW
Ambient temperature	Operating	T_{opr}	-40°C to 60°C (-40°F to 140°F)
	Storage	T_{stg}	-40°C to 100°C (-40°F to 212°F)

*Refer to Engineering Data if the ambient temperature is not within the normal room temperature range.

CHARACTERISTICS (T_A = 25°C (77°F))

Item		Symbol	Value	Condition
Emitter	Forward voltage	V _F	1.2 V typ.; 1.5 V max.	I _F =30 mA
	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.; 200 nA max.	V _{CE} =10 V 0 lx
	Peak spectral sensitivity wavelength	λ _p (P)	850 nm typ.	V _{CE} =10 V
Combination	Light current (collector current)	I _L	1.3 mA to 26 mA	I _F =10 mA V _{CE} =12 V
	Collector-emitter saturated voltage	V _{CE} (sat)	0.15 V typ.; 0.8 V max.	I _F =10 mA V _{CE} =12 V R _L =22 kΩ
	Rising time*	t _r	1000 μs max.	V _{CC} =12 V I _F =10 mA
	Falling time*	t _f	1000 μs max.	R _L =22 kΩ

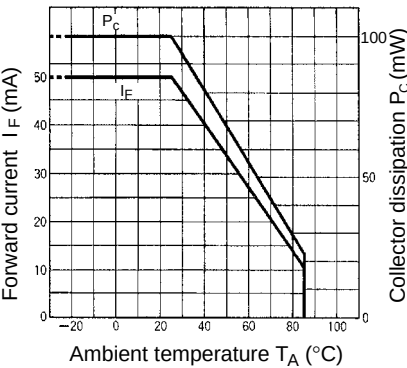
*The following illustrations show the rising time, t_r, and the falling time, t_f.



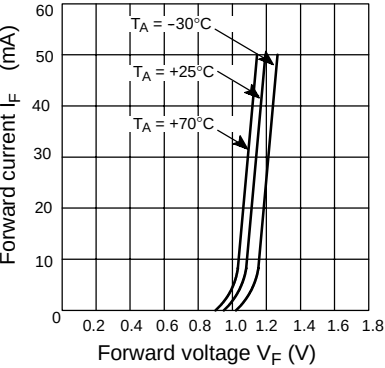
Engineering Data

Note: The operating conditions of the photomicrosensor must be within the absolute maximum rating ranges.

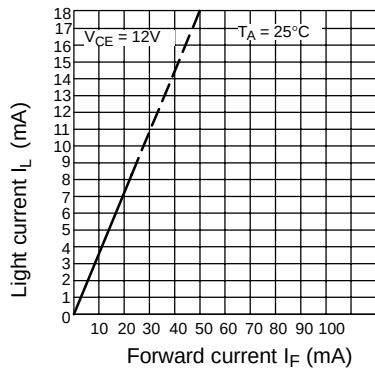
TEMPERATURE CHARACTERISTICS



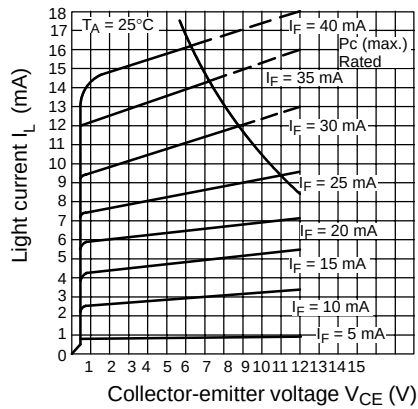
INPUT CHARACTERISTIC (TYPICAL)



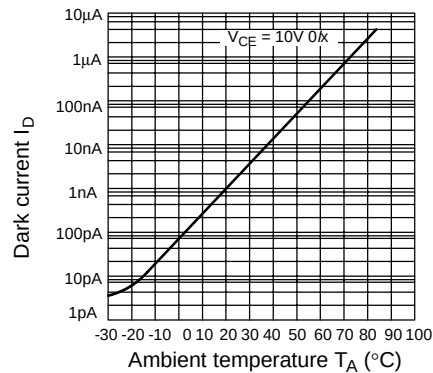
INPUT/OUTPUT CHARACTERISTICS (TYPICAL)



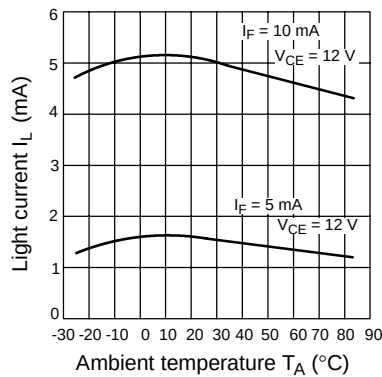
OUTPUT CHARACTERISTICS (TYPICAL)



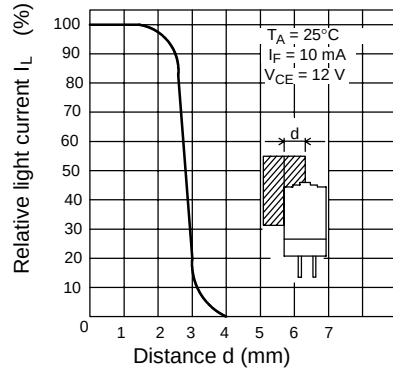
DARK CURRENT TEMPERATURE DEPENDENCY (TYPICAL)



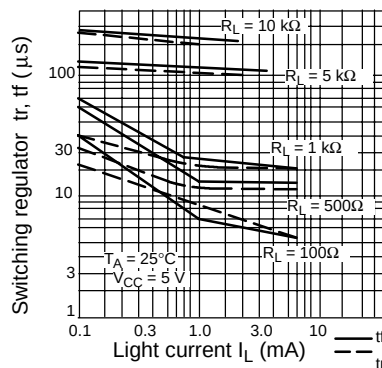
LIGHT CURRENT TEMPERATURE DEPENDENCY (TYPICAL)



SENSING POSITION CHARACTERISTICS (TYPICAL)



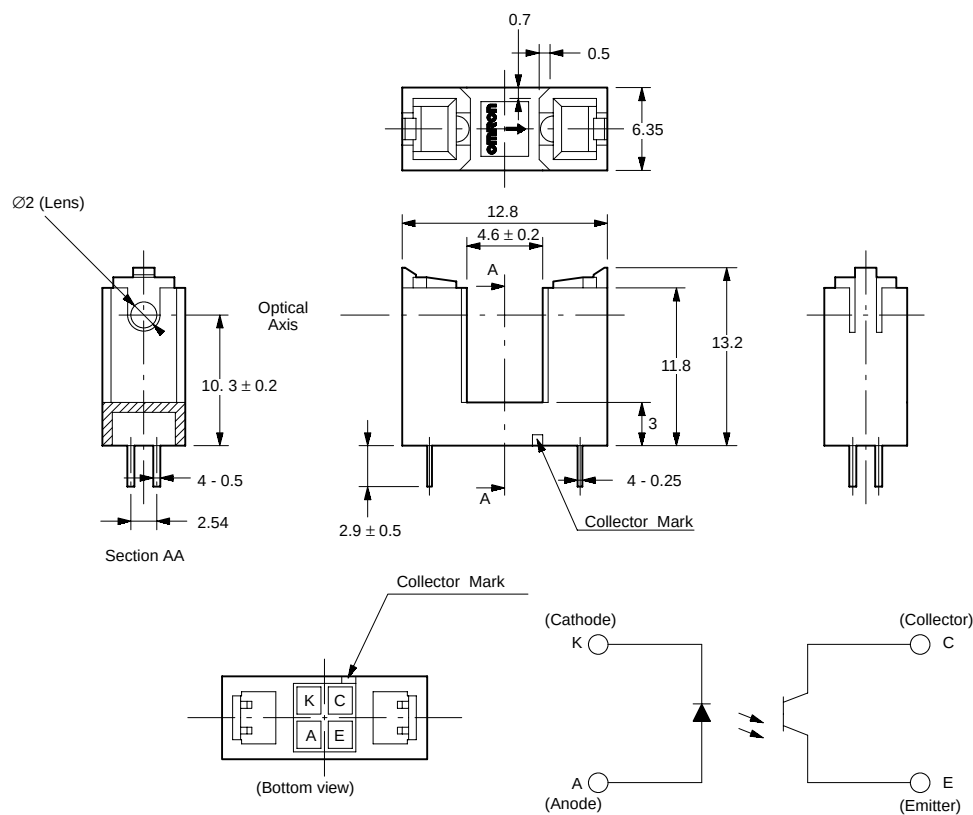
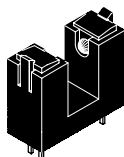
SWITCHING CHARACTERISTICS (TYPICAL)



Dimensions

Unit: mm (inch)

■ EE-SX1061



Precautions

Refer to the Technical Information Section for general precautions.

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

OMRON[®]
OMRON ELECTRONICS, INC.
 One East Commerce Drive
 Schaumburg, IL 60173
1-800-55-OMRON

OMRON CANADA, INC.
 885 Milner Avenue
 Scarborough, Ontario M1B 5V8
416-286-6465