

# OMRON

# Product Discontinuation Notices

June 1, 2009

**Photomicro Sensors** 

No.2009189E

# Photomicro Sensors EE-SY124 series Product Discontinuation Announcement

#### **Product Discontinuation**

Photomicro Sensors

# **Recommended Replacement**

Photomicro Sensors



Model EE-SY124 series

Model EE-SY171 Model EE-SY199

(EE-SX199 will be released at Dec.2009)

Discontinuation date: The end of March, 2010

### Caution on recommended replacement

Could you please confirm Dimension and Specifications of the EE-SY124 and recommended type before your new designing. Since the EE-SY124 and recommended type are not complete same size and Spec. And the EE-SY199 will be released at Dec.2009 but when you need this sensor samples for new designing, could you please contact with our sales staff.

### Difference from discontinued product

Model	Body Color	Dimen sions	Wire connection	Mounting Dimensions	Charact eristics	Operation ratings	Operation methods
EE-SY171	**				*	*	*
EE-SY199	**				*	*	*

\*\* : Fully compatible

\* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

#### **Product Discontinuation and recommended replacement**

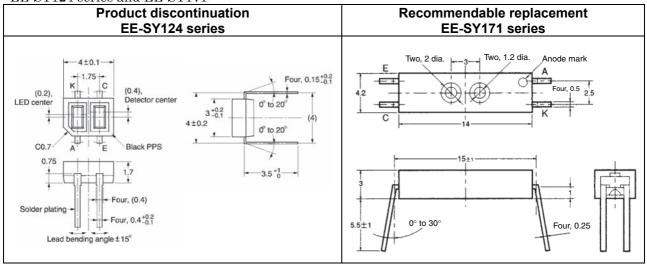
Product discontinuation	Recommended replacement			
	EE-SY171			
EE-SY124 series	EE-SY199			
	(EE-SY199 will be released at Dec.2010)			

**OMRON Corporation** 

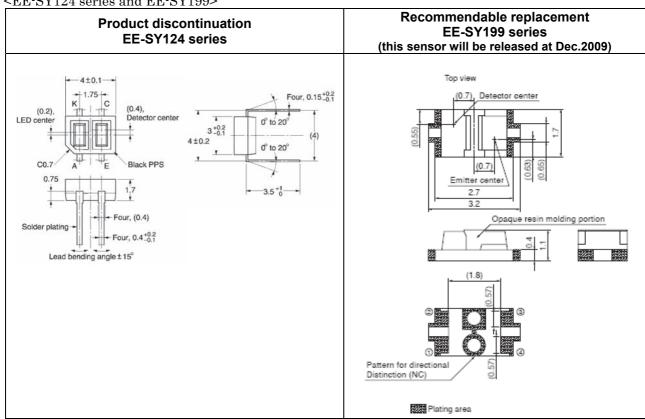
**Industrial Automation Company** 

# **Dimensions**

### <EE-SY124 series and EE-SY171>

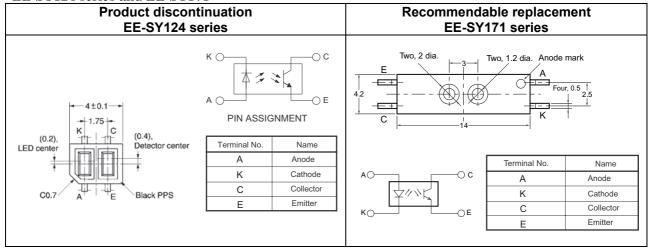


# <EE-SY124 series and EE-SY199>

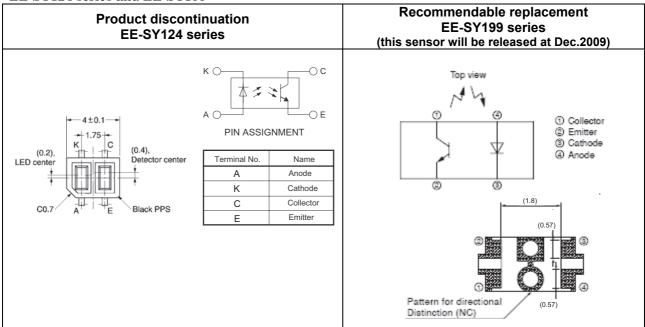


### **Terminal dimension**

### <EE-SY124 series and EE-SY171>



# <EE-SY124 series and EE-SY199>



# Packaging and Minimum order Qty.

	EE-SY124 series	EE-SY171	EE-SY199 (this sensor will be released at Dec.2009)
Packaging	50pcs.in each stick and Max.80 sticks per 1 packaging box	25pcs. in each bag and 10bag per 1 packaging box	2000pcs. per 1 reel and Aluminum damp proofing packing
Minimum order Qty.	2000pcs.	250pcs.	2000pcs.

# Absolute Maximum Ratings (Ta=25°C)

Item	Model to be discontinued EE-SY124 series	Recommended replacement EE-SY171	Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)
Forward current	50mA	50mA	50mA
Reverse voltage	4V	4V	6V
Collector-Emitter voltage	30V	30V	35V
Emitter-Collector voltage	5V	-	6V
Collector current	20mA	20mA	20mA
Collector dissipation	75mW	100mW	75mW
Operating temperature	-25 to +85°C	-40 to +85°C	-25 to +85°C
Storage temperature	-40 to +100°C	-40 to +85°C	-40 to +100°C
Soldering temperature	260°C max. less than 5 sec.	260°C max. less than 10 sec.	260°C max. less than 3 sec. 240°C max. less than 10 sec.

# Characteristics (Ta=25°C)

# <EE-SY124 series and EE-SY171>

		to be discont E-SY124 serie		Recommended replacement EE-SY171		
Item		Value		Value		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
	-	1.2V	1.4V	-	1.2V	1.4V
Forward voltage	Condition : II	F=20mA		Condition: IF=20mA		
Poverce current	-	0.01μΑ	10μΑ	-	-	10μΑ
Reverse current	Condition: V	R=4V		Condition: VR=6V		
Peak emission	-	900nm	-	-	950nm	-
wavelength	Condition : II	F=4mA		Condition: IF=4mA		
	50μΑ	-	300μΑ	40μΑ	85μΑ	130μΑ
	Condition : II	F=4mA,VCE=2	2V	Condition: IF=20mA,VCE=10V		
Light current	Sensing object	et: Aluminum-	deposited	Sensing object: White paper with a 90%		
	surface			reflection ratio		
	Sensing dista	ince:1mm		Sensing distance:3.5mm		
Dark current	-	2nA	200nA	-	2 nA	200 nA
Dark Current	Condition: VCE=10V, 0lx			Condition: VCE=10V, 0lx		
Collector-Emitter	-	-	-	-	-	-
saturated voltage	-			-		
Rising time tr	-	$35 \mu s$	-	-	20μs	100µs
	Condition: V	CC=2V,RL=1l	xΩ,IF=100μA	Condition: V	CC=2V,RL=11	kΩ,IF=100μA
Falling time tf	-	$25 \mu \mathrm{s}$	-	-	20 μs	100 μs
	Condition: V	CC=2V,RL=1	κΩ,IF=100μA	Condition: VCC=2V,RL=1kΩ,IF=100μA		

# Characteristics (Ta=25°C)

# <EE-SY124 series and EE-SY199>

		to be discont E-SY124 serie		Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)			
ltem		Value	T	Value			
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Forward voltage	-	1.2V	1.4V	-	1.2V	1.4V	
i oiwaiu voitage	Condition : I	F=20mA		Condition : I	F=20mA		
Reverse current	-	0.01μΑ	10μΑ	-	0.01μΑ	10μΑ	
Reverse current	Condition: V	R=4V		Condition: VR=6V			
Peak emission	-	950nm	-	-	950nm	-	
wavelength	Condition : I	F=4mA		Condition: IF=4mA			
	50μΑ	-	300μΑ	40μΑ	85μΑ	130μΑ	
	Condition: IF=4mA,VCE=2V			Condition: IF=4mA,VCE=2V			
Light current	Sensing object	et: Aluminum-	deposited	Sensing object: Aluminum-deposited			
	surface			surface			
	Sensing dista	ince:1mm		Sensing distance:1mm			
Dark ourrent	-	2nA	200nA	-	1nA	100nA	
Dark current	Condition: V	CE=10V, 0lx		Condition: VCE=20V, 0lx			
Collector-Emitter	-	-	-	-	-	-	
saturated voltage		-		-			
Rising time tr	-	$35 \mu s$	-	-	20μs	100μs	
	Condition: V	CC=2V,RL=1l	xΩ,IF=100μA	Condition: V	CC=2V,RL=1	<u>κΩ,IF=100μΑ</u>	
Falling time tf	-	$25 \mu s$	- '	-	20μs	100μs	
	Condition: V	CC=2V,RL=1l	xΩ,IF=100μA	Condition: V	CC=2V,RL=1l	<u>κΩ,IF=100μA</u>	