

NO: PMS-002
DATE: May 2009
PRODUCT: Non-Amplified PMS EE-SY124 and EE-SY125
TYPE: Product Discontinuation

EE-SY124 and EE-SY125 Non-Amplified Photomicrosensors DISCONTINUED

Due to the discontinuation of sub-components, Omron is discontinuing the below parts.

<u>Part No.</u>	<u>Discontinuation Date</u>	<u>Last Order Date</u>	<u>Conditional Replacements</u>
EE-SY124	March 30, 2010	February 1, 2010	EE-SY171, EE-SY199
EE-SY125	March 30, 2010	February 1, 2010	EE-SY199

PLEASE NOTIFY YOUR CUSTOMERS IMMEDIATELY!

Replacement Information:

Neither listed "Conditional Replacement" is a direct replacement. Please notify customers ASAP so that they can start planning for and testing replacement options.

The EE-SY171 is available now. It is a Non-stock/NCNR type part, but we currently have over 3000 pieces in stock at the Illinois warehouse. Here is a link to the datasheet:

[http://www.components.omron.com/components/web/pdf/lib.nsf/0/5B71DC853968AD5485257201007DD603/\\$file/D21EESY1710305.pdf](http://www.components.omron.com/components/web/pdf/lib.nsf/0/5B71DC853968AD5485257201007DD603/$file/D21EESY1710305.pdf)

The EE-SY199 is scheduled to be released in January 2010, however, pre-release samples may be available from the factory before then. Please send your requests to the Product Manager.

EE-SY124 Replacement Comparison:

Model	Color of body	Dimension	Wiring Connection	Mounting dimension	Characteristics	Operation rating	Operation method
EE-SY171	◎	×	×	×	○	○	○
EE-SY199	◎	×	×	×	○	○	○

◎ Completely compatible

○ Small change / High equivalent

× Large change

	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 dampproofing packing
Minimum order Qty.	2000pcs.	250pcs.	2000pcs.

< EE-SY124 series and EE-SY171 >

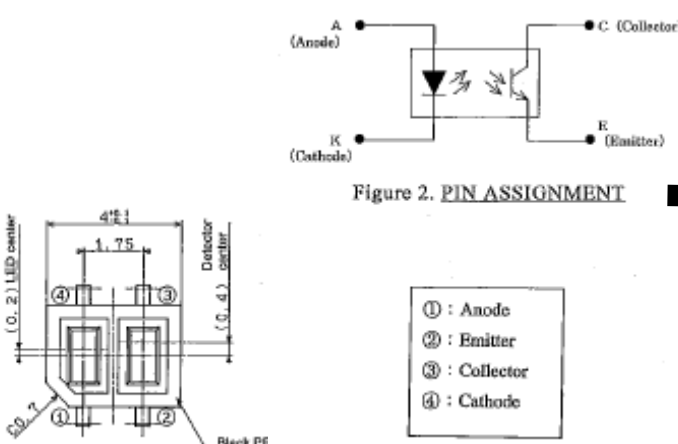
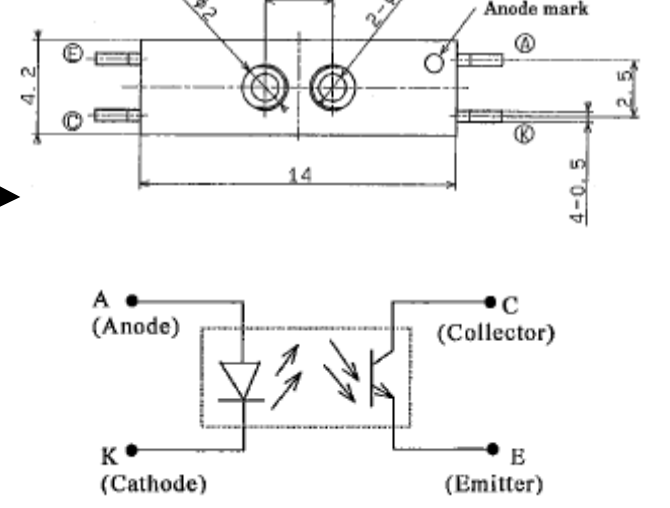
<p>Model to be discontinued EE-SY124 series</p>	<p>Recommended replacement EE-SY171 (this sensor will be released at Dec.2009)</p>

< EE-SY124 series and EE-SY199 >

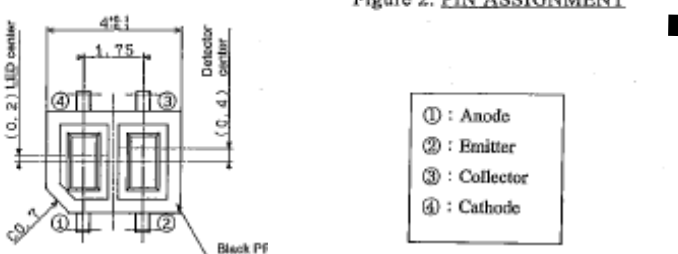
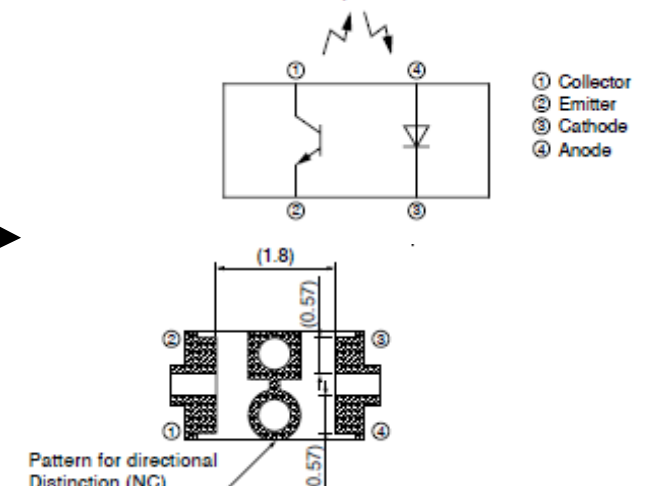
<p>Model to be discontinued EE-SY124 series</p>	<p>Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)</p>

Terminal dimension

< EE-SY124 series and EE-SY171 >

<p>Model to be discontinued EE-SY124 series</p>	<p>Recommended replacement EE-SY171</p>
 <p>Figure 2. PIN ASSIGNMENT</p>	

< EE-SY124 series and EE-SY199 >

<p>Model to be discontinued EE-SY124 series</p>	<p>Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)</p>
 <p>Figure 2. PIN ASSIGNMENT</p>	

< EE-SY124 series and EE-SY171 >

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	50 mA	50 mA	50 mA
Reverse voltage	4 V	4 V	6 V
Collector-Emitter voltage	30 V	30 V	35 V
Emitter-Collector voltage	5 V	—	6 V
Collector current	20 mA	20 mA	20 mA
Collector dissipation	75 mW	100 mW	75 mW
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 +85 °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.

< EE-SY124 series and EE-SY171 >

Item	Model to be discontinued EE-SY124 series			Recommended replacement EE-SY171		
	Value			Value		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
Forward voltage	—	1.2V	1.4V	—	1.2V	1.4V
	Condition : IF=20mA			Condition : IF=20mA		
Reverse current	—	0.01µA	10µA	—	—	10µA
	Condition : VR=4V			Condition : VR=6V		
Peak emission wavelength	—	900nm	—	—	950nm	—
	Condition : IF=4mA			Condition : IF=4mA		
Light current	50µA	—	300µA	40µA	85µA	130µA
	Condition : IF=4mA, VCE=2V Sensing object: Aluminum-deposited surface Sensing distance:1mm			Condition : IF=20mA, VCE=10V Sensing object: White paper with a 90% reflection ratio Sensing distance:3.5mm		
Dark current	—	2nA	200nA	—	2nA	200nA
	Condition : VCE=10V, 0lx			Condition : VCE=10V, 0lx		
Collector-Emitter saturated voltage	—	—	—	—	—	—
	—			—		
Rising time t _r	—	35µs	—	—	20µs	100µs
	Condition : VCC=2V, RL=1kΩ, IF=100µA			Condition : VCC=2V, RL=1kΩ, IF=100µA		
Falling time t _f	—	25µs	—	—	20µs	100µs
	Condition : VCC=2V, RL=1kΩ, IF=100µA			Condition : VCC=2V, RL=1kΩ, IF=100µA		

< EE-SY124 series and EE-SY199 >

Item	Model to be discontinued EE-SY124 series			Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)		
	Value			Value		
	MIN.	MIN.	MIN.	MIN.	TYP.	MAX.
Forward voltage	—	1.2V	1.4V	—	1.2V	1.4V
	Condition : IF=20mA			Condition : IF=20mA		
Reverse current	—	0.01μA	10μA	—	0.01μA	10μA
	Condition : VR=4V			Condition : VR=6V		
Peak emission wavelength	—	950nm	—	—	950nm	—
	Condition : IF=4mA			Condition : IF=4mA		
Light current	50μA	—	300μA	40μA	85μA	130μA
	Condition : IF=4mA, VCE=2V Sensing object: Aluminum-deposited surface Sensing distance:1mm			Condition : IF=4mA, VCE=2V Sensing object: Aluminum-deposited surface Sensing distance:1mm		
Dark current	—	2nA	200nA	—	1nA	100nA
	Condition : VCE=10V, 0lx			Condition : VCE=20V, 0lx		
Collector-Emitter saturated voltage	—	—	—	—	—	—
	—			—		
Rising time tr	—	35μs	—	—	20μs	100μs
	Condition : VCC=2V, RL=1kΩ, IF=100μA			Condition : VCC=2V, RL=1kΩ, IF=100μA		
Falling time tf	—	25μs	—	—	20μs	100μs
	Condition : VCC=2V, RL=1kΩ, IF=100μA			Condition : VCC=2V, RL=1kΩ, IF=100μA		

EE-SY125 Replacement Comparison:

Model	Color of body	Dimension	Wiring Connection	Mounting dimension	Characteristics	Operation rating	Operation method
EE-SY199	◎	×	×	×	○	○	○

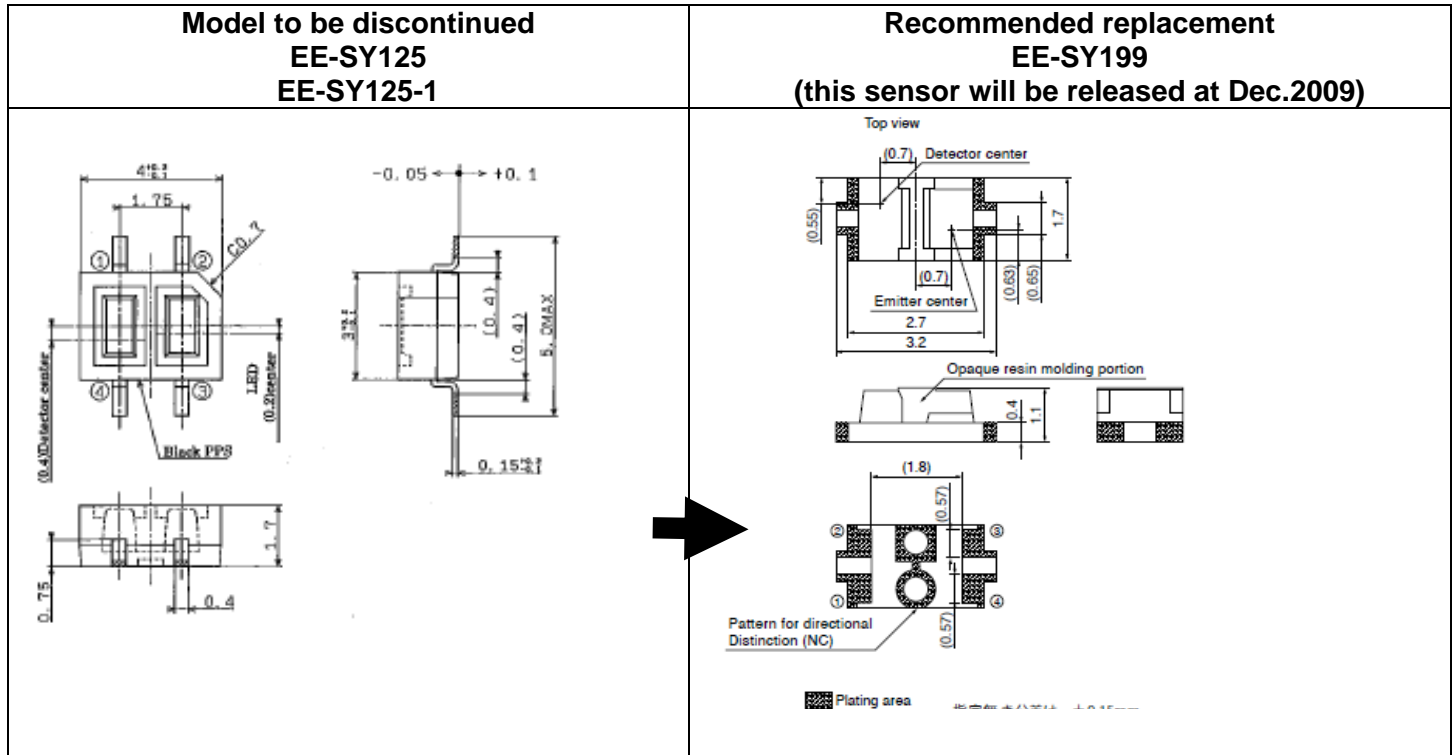
◎ Completely compatible

○ Small change / High equivalent

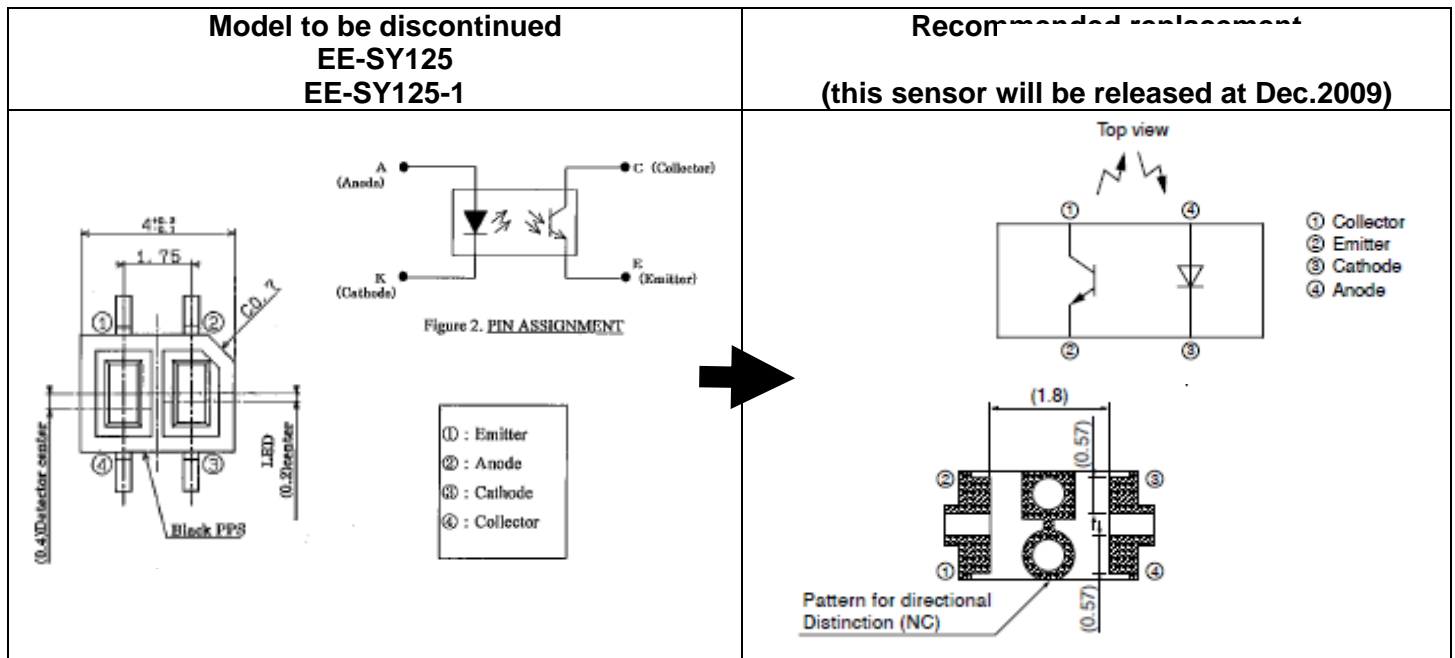
× Large change

	EE-SY125	EE-SY125-1	EE-SY199 (this sensor will be released at Dec.2009)
Packaging	50pcs.in each stick and 40 sticks per 1 Aluminum dampproofing packing	1000pcs. per 1 reel and Aluminum dampproofing packing	2000pcs. per 1 reel and Aluminum dampproofing packing
Minimum order Qty.	2000pcs.	1000pcs.	2000pcs.

< EE-SY125/EE-SY125-1 and EE-SY199 >



< EE-SY125/EE-SY125-1 and EE-SY199 >



< EE-SY125/EE-SY125-1 and EE-SY199 >

Item	Model to be discontinued EE-SY125/EE-SY125-1	Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)
Forward current	50 mA	50 mA
Reverse voltage	4 V	6 V
Collector-Emitter voltage	3.0 V	3.5 V
Emitter-Collector voltage	5 V	6 V
Collector current	20 mA	20 mA
Collector dissipation	75 mA	75 mA
Operating temperature	-25 to +85 °C	-25 to +85 °C
Storage temperature	-40 to +100 °C	-40 to +100 °C
Soldering temperature	260°C max. less than 3 sec. 240°C max. less than 10 sec.	260°C max. less than 5 sec. 240°C max. less than 10 sec.

Characteristics (Ta=25°C)

< EE-SY125/EE-SY125-1 and EE-SY199 >

Item	Model to be discontinued EE-SY125/EE-SY125-1			Recommended replacement EE-SY199 (this sensor will be released at Dec.2009)		
	Value			Value		
	MIN.	MIN.	MIN.	MIN.	TYP.	MAX.
Forward voltage	—	1.2V	1.4V	—	1.2V	1.4V
	Condition : IF=20mA			Condition : IF=20mA		
Reverse current	—	0.01µA	10µA	—	—	10µA
	Condition : VR=4V			Condition : VR=6V		
Peak emission wavelength	—	950nm	—	—	950nm	—
	Condition : IF=4mA			Condition : IF=4mA		
Light current	50µA	—	300µA	40µA	85µA	130µA
	Condition : IF=4mA, VCE=2V Sensing object: Aluminum-deposited surface Sensing distance:1mm			Condition : IF=4mA, VCE=2V Sensing object: Aluminum-deposited surface Sensing distance:1mm		
Dark current	—	2nA	200nA	—	1nA	100nA
	Condition : VCE=10V, 0lx			Condition : VCE=20V, 0lx		
Collector-Emitter saturated voltage	—	—	—	—	—	—
Rising time tr	—	35µs	—	—	20µs	100µs
	Condition : VCC=2V, RL=1kΩ, IF=100µA			Condition : VCC=2V, RL=1kΩ, IF=100µA		
Falling time tf	—	25µs	—	—	20µs	100µs
	Condition : VCC=2V, RL=1kΩ, IF=100µA			Condition : VCC=2V, RL=1kΩ, IF=100µA		