PRODUCT NEWS

Product Discontinuation Notices

Optical Sensors

OMRON

Issue Date
March 1, 2021

No. 2021026CE(ON)

Discontinuation Notice of Photomicro Sensors EE series(partially).

Product Discontinuation		Recommended Replacement
Photomicro sensor		Photomicro sensor
Model EE-SA103		**Model EE-SX1055**
Model EE-SA104		**Model EE-SX1055**
Model EE-SF5-RANKA		**Model EE-SF5**
Model EE-SX1128		**Model EE-SX1096**
Model EE-TP109A		**No recommended replacement**

[Final order entry date]

The end of March, 2022

[Date of The Last Shipping]

The end of June, 2022

[Caution on recommended replacement]

Dimensions and specifications differ except for the body color. Therefore, it is not a complete compatible products. Please refer to the catalog or specifications for accurate content.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimen-sions	Wire connection	Mounting Dimensions	Charac-teristics	Operation ratings	Operation methods
EE-SX1055	**	--	**	*	**	-	-
EE-SF5	**	**	**	**	*	-	-
EE-SX1096	**	--	**	*	*	-	-

** : Compatible
* : The change is a little/Almost compatible
-- : Not compatible
- : No corresponding specification

[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
EE-SA103	EE-SX1055
EE-SA104	EE-SX1055
EE-SF5-RANKA	EE-SF5
EE-SX1128	EE-SX1096
EE-TP109A	No recommended replacement

[Body color]

Product discontinuation Model EE-SA103	Recommendable replacement Model EE-SX1055
Black 	Black

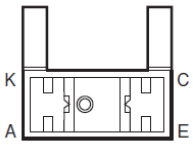
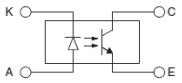
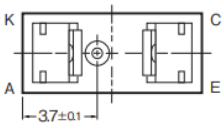
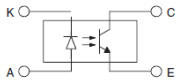
Product discontinuation Model EE-SA104	Recommendable replacement Model EE-SX1055
Black 	Black

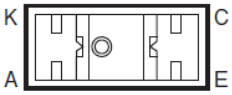
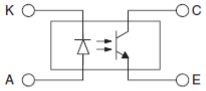
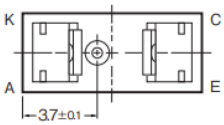
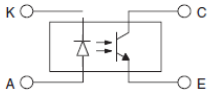
Product discontinuation Model EE-SF5-RANKA	Recommendable replacement Model EE-SF5
Black 	Black

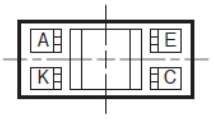
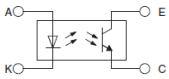
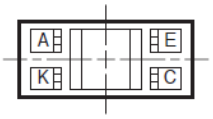
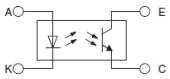
Product discontinuation Model EE-SX1228	Recommendable replacement Model EE-SX1096
Black 	Black

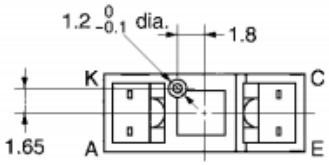
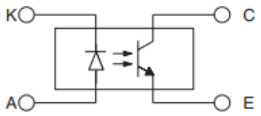
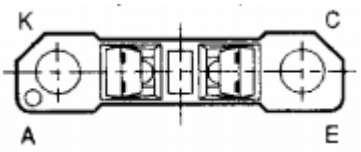
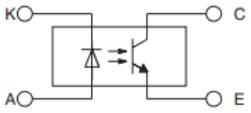
Product discontinuation Model EE-TP109A	Recommendable replacement
Red No Photo	No recommended replacement

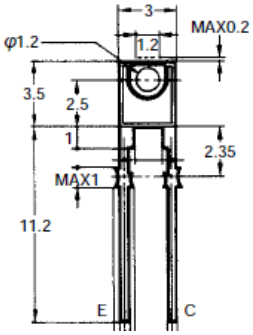
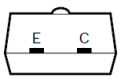
[Wire connection]

Product discontinuation Model EE-SA103	Recommendable replacement Model EE-SX1055
Wire conection  Internal Circuit  Terminal No. / Name A / Anode K / Cathode C / Collector E / Emitter	Wire conection  Internal Circuit  Terminal No. / Name A / Anode K / Cathode C / Collector E / Emitter

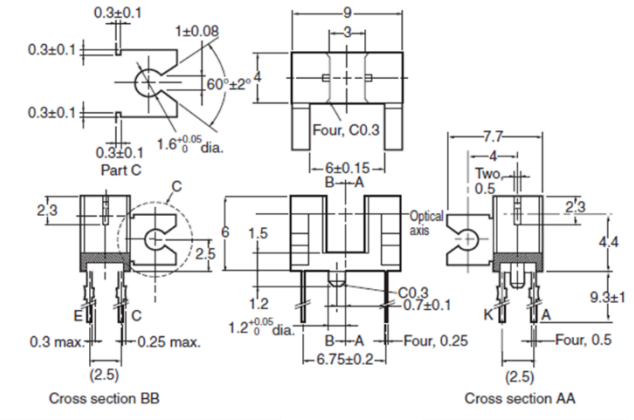
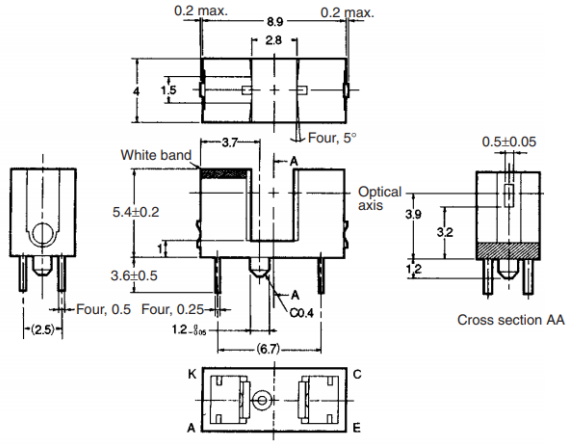
Product discontinuation Model EE-SA104	Recommendable replacement Model EE-SX1055
Wire conection  Internal Circuit  Terminal No. / Name A / Anode K / Cathode C / Collector E / Emitter	Wire conection  Internal Circuit  Terminal No. / Name A / Anode K / Cathode C / Collector E / Emitter

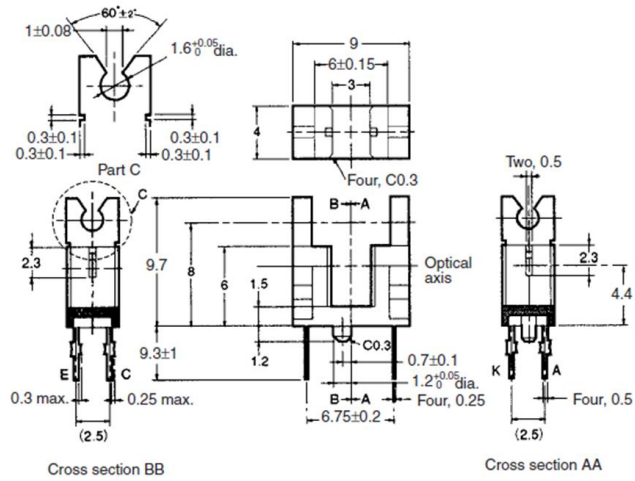
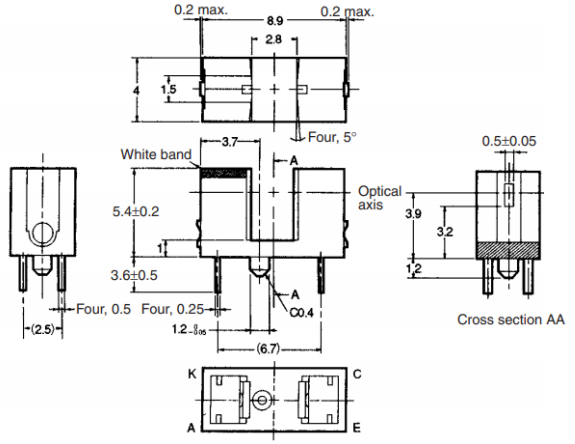
Product discontinuation Model EE-SF5-RANKA	Recommendable replacement Model EE-SF5
Wire conection  Internal Circuit  Terminal No. / Name A / Anode K / Cathode C / Collector E / Emitter	Wire conection  Internal Circuit  Terminal No. / Name A / Anode K / Cathode C / Collector E / Emitter

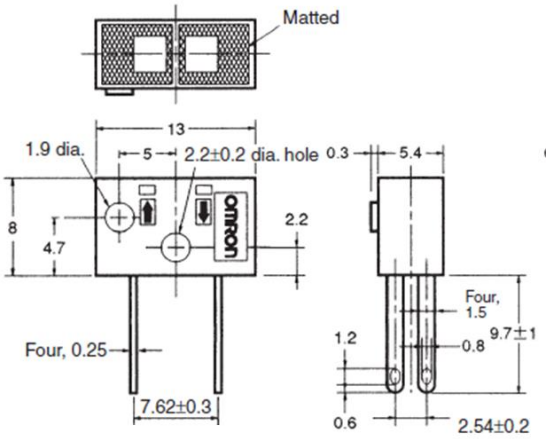
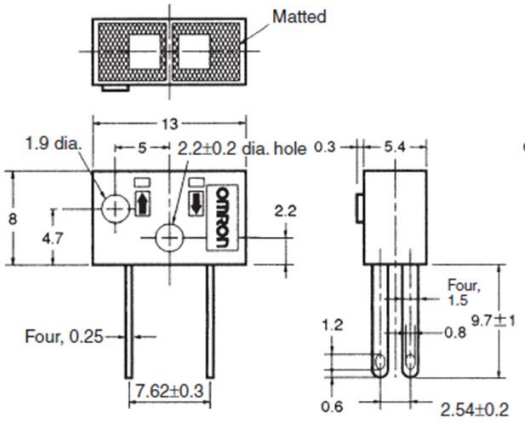
Product discontinuation Model EE-SX1228	Recommendable replacement Model EE-SX1096
Wire conection  **Internal Circuit**  **Terminal No.** / **Name** A – Anode K – Cathode C – Collector E – Emitter	Wire conection  **Internal Circuit**  **Terminal No.** / **Name** A – Anode K – Cathode C – Collector E – Emitter

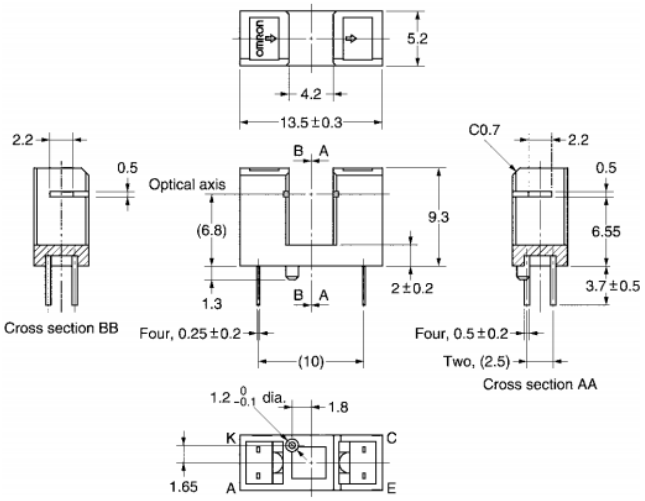
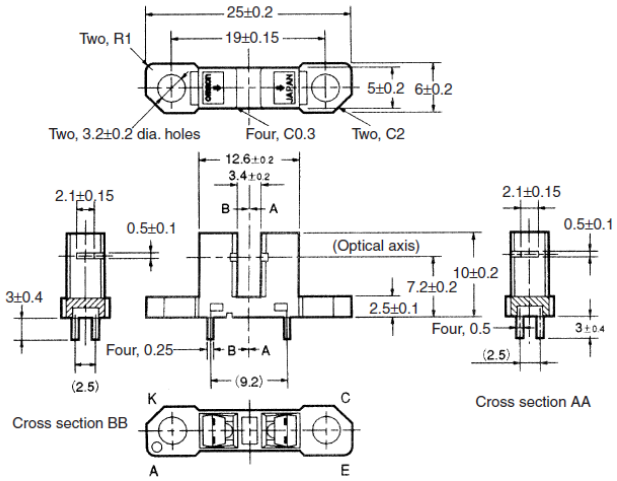
Product discontinuation Model EE-TP109A	Recommendable replacement
Wire conection  Internal Circuit  **Terminal No.** / **Name** C – Collector E – Emitter	No recommended replacement

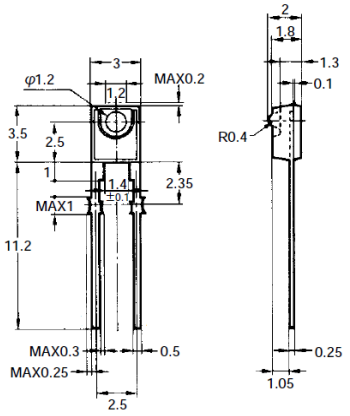
[Dimensions]

Product discontinuation Model EE-SA103	Recommendable replacement Model EE-SX1055
Dimensions W×L×H: 9mm×7.7mm×6mm Slot width : 3mm  	Dimensions W×L×H: 8.9mm×4mm×5.4mm Slot width : 2.8mm 

Product discontinuation Model EE-SA104	Recommendable replacement Model EE-SX1055
Dimensions W×L×H: 9mm×4mm×9.7mm Slot width : 3mm  	Dimensions W×L×H: 8.9mm×4mm×5.4mm Slot width : 2.8mm 

Product discontinuation Model EE-SF5-RANKA	Recommendable replacement Model EE-SF5
Dimensions W×L×H: 13mm×5.4mm×8mm 	Dimensions W×L×H: 13mm×5.4mm×8mm 

Product discontinuation Model EE-SX1228	Recommendable replacement Model EE-SX1096
Dimensions W×L×H: 13.5mm×5.2mm×9.3mm Slot width：4.2mm 	Dimensions W×L×H: 25mm×6mm×10mm Slot width：3.4mm 

Product discontinuation Model EE-TP109A	Recommendable replacement
Dimensions W×L×H: 2mm×3mm×14.7mm 	No recommended replacement

[Characteristics]

Item	Product discontinuation Model EE-SA103	Recommendable replacement Model EE-SX1055
Emitter forward current	Maximum Ratings 50 mA	
Emitter pulse forward current	Maximum Ratings 1 A (Conditions The pulse width is 10 μs maximum with a frequency of 100 Hz.)	
Emitter reverse voltage	Maximum Ratings 4 V	
Detector Collector–Emitter voltage	Maximum Ratings 30 V	
Detector collector current	Maximum Ratings 20 mA	
Detector collector dissipation	Maximum Ratings 100mW	
Operating temperature	-25℃～85℃	
Storage temperature	-30℃～100℃	
Emitter forward voltage	TYP:1.2 V MAX:1.5 V (Conditions IF=30mA)	
Emitter reverse current	TYP:0.01 μA MAX:10 μA (Conditions VR=4V)	
Emitter peak emission wavelength	TYP:940nm (Conditions IF=20mA)	
Detector light current	MIN:0.5 mA MAX:14 mA (Conditions IF=20mA、VCE=10V)	
Detector dark current	TYP:2 nA MAX:200 nA (Conditions VCE=10V、0lx)	
Detector Collector–Emitter saturated voltage	TYP:0.1 V MAX:0.4 V (Conditions IF=20mA、IL=0.1mA)	
Detector peak spectral sensitivity wavelength	TYP:850 nm (Conditions VCE=10V)	
Rising time	TYP:4 μs (Conditions Vcc=5V、RL=100Ω、IL=5mA)	
Falling time	TYP:4 μs (Conditions Vcc=5V、RL=100Ω、IL=5mA)	

Item	Product discontinuation Model EE-SA104	Recommendable replacement Model EE-SX1055
Emitter forward current	Maximum Ratings 50 mA	
Emitter pulse forward current	Maximum Ratings 1 A (Conditions The pulse width is 10 μs maximum with a frequency of 100 Hz.)	
Emitter reverse voltage	Maximum Ratings 4 V	
Detector Collector–Emitter voltage	Maximum Ratings 30 V	
Detector collector current	Maximum Ratings 20 mA	
Detector collector dissipation	Maximum Ratings 100mW	
Operating temperature	-25℃～85℃	
Storage temperature	-30℃～100℃	
Emitter forward voltage	TYP:1.2 V MAX:1.5 V (Conditions IF=30mA)	
Emitter reverse current	TYP:0.01 μA MAX:10 μA (Conditions VR=4V)	
Emitter peak emission wavelength	TYP:940nm (Conditions IF=20mA)	
Detector light current	MIN:0.5 mA MAX:14 mA (Conditions IF=20mA、VCE=10V)	
Detector dark current	TYP:2 nA MAX:200 nA (Conditions VCE=10V、0lx)	
Detector Collector–Emitter saturated voltage	TYP:0.1 V MAX:0.4 V (Conditions IF=20mA、IL=0.1mA)	
Detector peak spectral sensitivity wavelength	TYP:850 nm (Conditions VCE=10V)	
Rising time	TYP:4 μs (Conditions Vcc=5V、RL=100Ω、IL=5mA)	
Falling time	TYP:4 μs (Conditions Vcc=5V、RL=100Ω、IL=5mA)	

Item	Product discontinuation Model EE-SF5-RANKA	Recommendable replacement Model EE-SF5
Emitter forward current	Maximum Ratings 50 mA	
Emitter pulse forward current	Maximum Ratings 1 A (Conditions The pulse width is 10 μs maximum with a frequency of 100 Hz.)	
Emitter reverse voltage	Maximum Ratings 4 V	
Detector Collector–Emitter voltage	Maximum Ratings 30 V	
Detector collector current	Maximum Ratings 20 mA	
Detector collector dissipation	Maximum Ratings 100mW	
Operating temperature	-25℃～80℃	
Storage temperature	-30℃～80℃	
Emitter forward voltage	TYP:1.2 V MAX:1.5 V (Conditions IF=30mA)	
Emitter reverse current	TYP:0.01 μA MAX:10 μA (Conditions VR=4V)	
Emitter peak emission wavelength	TYP:940nm (Conditions IF=20mA)	
Detector light current	MIN:200 μA MAX:1000 μA (Conditions IF=20mA、VCE=10V White paper with a reflection ratio of 90%, d = 5 mm)	MIN:200 μA MAX:2000 μA (Conditions IF=20mA、VCE=10V White paper with a reflection ratio of 90%, d = 5 mm)
Detector dark current	TYP:2 nA MAX:200 nA (Conditions VCE=10V、0lx)	
Detector leakage current	MAX:2 μA (Conditions IF=20mA、VCE=10V、 with no reflection)	
Detector peak spectral sensitivity wavelength	TYP:850 nm (Conditions VCE=10V)	
Rising time	TYP:30 μs (Conditions Vcc=5V、RL=1kΩ、IL=1mA)	
Falling time	TYP:30 μs (Conditions Vcc=5V、RL=1kΩ、IL=1mA)	

Item	Product discontinuation Model EE-SX1128	Recommendable replacement Model EE-SX1096
Emitter forward current	Maximum Ratings 50 mA	
Emitter pulse forward current	Maximum Ratings 1 A (Conditions The pulse width is 10 μs maximum with a frequency of 100 Hz.)	
Emitter reverse voltage	Maximum Ratings 4 V	
Detector Collector–Emitter voltage	Maximum Ratings 30 V	
Detector collector current	Maximum Ratings 20 mA	
Detector collector dissipation	Maximum Ratings 100mW	
Operating temperature	-25℃～85℃	
Storage temperature	-30℃～100℃	
Emitter forward voltage	TYP:1.2 V MAX:1.5 V (Conditions IF=30mA)	
Emitter reverse current	TYP:0.01 μA MAX:10 μA (Conditions VR=4V)	
Emitter peak emission wavelength	TYP:940nm (Conditions IF=20mA)	
Detector light current	MIN:0.5 mA MAX:10 mA (Conditions IF=20mA、VCE=10V)	MIN:0.5 mA MAX:14 mA (Conditions IF=20mA、VCE=10V)
Detector dark current	TYP:2 nA MAX:200 nA (Conditions VCE=10V、0lx)	
Detector Collector–Emitter saturated voltage	TYP:0.1 V MAX:0.4 V (Conditions IF=20mA、IL=0.1mA)	
Detector peak spectral sensitivity wavelength	TYP:850 nm (Conditions VCE=10V)	
Rising time	TYP:4 μs (Conditions Vcc=5V、RL=100Ω、IL=5mA)	
Falling time	TYP:4 μs (Conditions Vcc=5V、RL=100Ω、IL=5mA)	

Item	Product discontinuation Model EE-TP109A	Recommendable replacement
Detector Collector–Emitter voltage	Maximum Ratings 30 V	No recommended replacement
Detector collector current	Maximum Ratings 20 mA	
Detector collector dissipation	Maximum Ratings 100mW	
Operating temperature	-25℃～85℃	
Storage temperature	-40℃～85℃	
Detector light current	MIN:22 uA MAX:54 uA (Conditions IF=28mA、VCE=10V)	
Detector dark current	MAX:100 nA (Conditions VCE=10V、0lx)	

Specifications and prices in this product news are as of the issue date and are subject to change without notice.
Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.