

EE-SV3 Series

Slot/Terminal Type with Screw Mounted Tab (Slot Width: 3.4 mm)

- Four aperture types
- Two types of terminals (terminal for cord soldering, terminal for PCB mounting)



Be sure to read *Safety Precautions* on Page 3.



Ordering Information

Photomicrosensor

Appearance	Sensing method	Connecting method	Sensing distance	Aperture size (H × W) (mm) (Both emitting side and detecting side)	Output type	Model	Minimum packing unit (Unit: pcs)
	Transmissive (slot type)	Terminal for cord soldering	3.4 mm (Slot width)	2.1 × 0.5	Phototransistor	EE-SV3	1
		Terminal for PCB mounting		2.1 × 1		EE-SV3-CS	
2.1 × 0.2	EE-SV3-DS						
0.5 × 2.1	EE-SV3-GS						
2.1 × 0.5	EE-SV3-B						
2.1 × 1	EE-SV3-C						
2.1 × 0.2	EE-SV3-D						
	Transmissive (slot type)	Terminal for PCB mounting		0.5 × 2.1		EE-SV3-G	

Note: Order in multiples of minimum packing unit.

Ratings, Characteristics and Exterior Specifications

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rated value	Unit
Emitter			
Forward current	I _F	50*1	mA
Pulse forward current	I _{FP}	1*2	A
Reverse voltage	V _R	4	V
Detector			
Collector-Emitter voltage	V _{CEO}	30	V
Emitter-Collector voltage	V _{ECO}	—	V
Collector current	I _C	20	mA
Collector dissipation	P _C	100*1	mW
Operating temperature	T _{opr}	-25 to 85	°C
Storage temperature	T _{stg}	-30 to 100	°C
Soldering temperature	T _{sol}	260*3	°C

*1. Refer to the temperature rating chart if the ambient temperature exceeds 25°C.

*2. Pulse width ≤ 10 μs, Repeated 100 Hz

*3. Complete soldering within 10 seconds.

Exterior Specifications

Connecting method	Model	Weight (g)	Material	
			Case	Bottom plate
Terminal for cord soldering	EE-SV3	1	Polycarbonate	Polycarbonate
	EE-SV3-CS			
	EE-SV3-DS			
	EE-SV3-GS			
Terminal for PCB mounting	EE-SV3-B	1	Polycarbonate	Polycarbonate
	EE-SV3-C			
	EE-SV3-D			
	EE-SV3-G			

Electrical and Optical Characteristics (Ta = 25°C)

Item	Symbol	Value				Unit	Condition
		EE-SV3 EE-SV3-B	EE-SV3-C EE-SV3-CS	EE-SV3-D EE-SV3-DS	EE-SV3-G EE-SV3-GS		
Emitter							
Forward voltage	V _F	1.2 (TYP.) 1.5 (MAX.)				V	I _F = 30 mA
Reverse current	I _R	0.01 (TYP.) 10 (MAX.)				μA	V _R = 4 V
Peak emission wavelength	λ _P	940 (TYP.)				nm	I _F = 20 mA
Detector							
Light current	I _L	0.5 to 14	1 to 28	0.1 (MIN.)	0.5 to 14	mA	I _F = 20 mA, V _{CE} = 10 V
Dark current	I _D	2 (TYP.) 200 (MAX.)				nA	V _{CE} = 10 V, 0 I _x
Leakage current	I _{LEAK}	—				μA	—
Collector-Emitter saturated voltage	V _{CE (sat)}	0.1 (TYP.) 0.4 (MAX.)	—	0.1 (TYP.) 0.4 (MAX.)	—	V	I _F = 20 mA, I _L = 0.1 mA
Peak spectral sensitivity wavelength	λ _P	850 (TYP.)				nm	V _{CE} = 10 V
Rising time	t _r	4 (TYP.)				μs	V _{CC} = 5 V, R _L = 100 Ω
Falling time	t _f	4 (TYP.)				μs	I _L = 5 mA