Surface Mount High Output Infrared LEDs

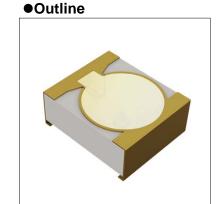
SIM-030ST Datasheet

Applications

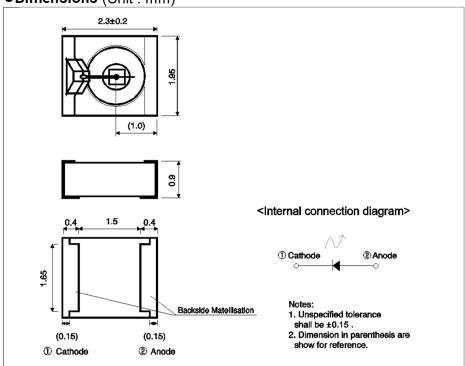
• Light source for sensors

Features

- 1) Higt compact, low-profile
- 2) Higt output, over a narrow angle
- 3) Exellent temperature property
- 4) Long life, high reliability
- 5) Original optical tecnology is ultra-high-output surface mount infrared LEDs.



●Dimensions (Unit: mm)



● Absolute maximum ratings (T_a = 25°C)

Parameter	Symbol	Value	Unit	
Forward current	I _F	100	mA	
Pulse forward current*1	I _{FP}	1	А	
Reverse voltage	V_R	5	V	
Power dissipation	P_{D}	180	mW	
Operating temperature	T_{opr}	-25 to +85	°C	
Storage temperature	T _{stg}	−40 to +85	°C	

^{*1} Pulse width 0.1msec,duty ratio1%

●Electrical and optical characteristics (T_a = 25°C)

Parameter	Symbol	Conditions	Values			Unit
			Min.	Тур.	Max.	Offic
Forward voltage	V_{F}	I _F =100mA	-	1.7	2.5	V
Reverse current	I _R	V _R =5V	1	1	15	μΑ
Peak light emitting wavelength	λ_{peak}	I _F =100mA	-	870	-	nm
Spectral line half width	Δλ	I _F =100mA	ı	35	ı	nm
View angle	$\theta_{1/2}$	-	ı	±20	ı	deg.
Radiant intensity	I _E	I _F =100mA	10	ı	100	mW/sr

^{*}Non-coherent infrared light emiting diode used.

^{*}This product is not designed to be protected against electromagnetic wave.

•Electrical and optical characteristics curves

Fig.1 Forward Current Falloff

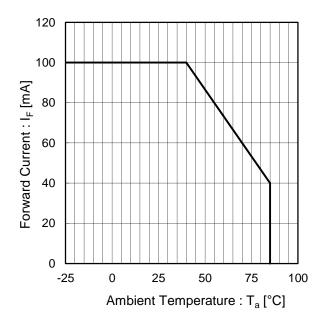


Fig.2 Forward Current vs. Forward Voltage

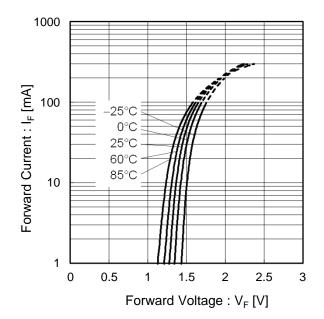


Fig.3 Emitter Strength vs. Forward Current

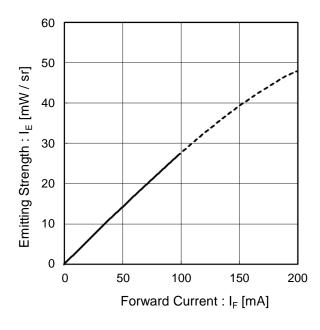
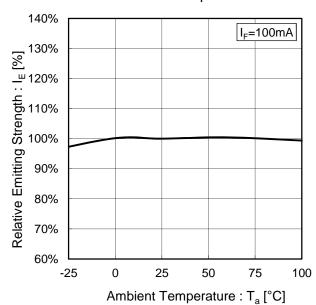


Fig.4 Relative Emitter Strength vs. Ambient Temperature



•Electrical and optical characteristics curves

Fig.5 Spectrum Data

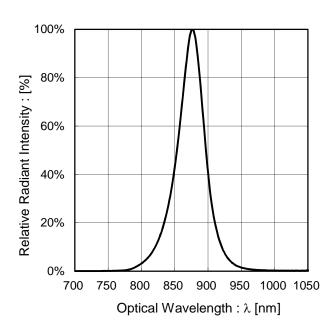


Fig.6 Radiant Intensity

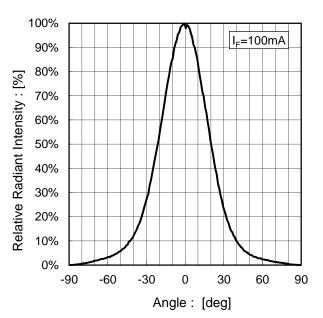
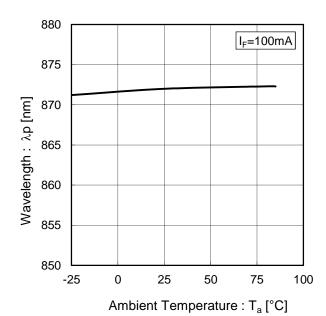


Fig.7 Wavelength vs. Ambient Temperature



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Офис по работе с юридическими лицами:

105318, г. Москва, ул. Щербаковская д. 3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru moschip.ru_6 moschip.ru_4 moschip.ru_9