

High power Chip IR LED, side view type

SIM-012SB

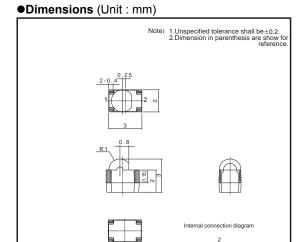
The SIM-012SB is ultra small size and high power ohip sensor. Original technology, original structure and original Optical design enable to use Automatic moantining machine, Reflow, ultra smallsize, High power.

Applications

Optical control equipment Light source for remote control devices

Features

- 1) High power by ϕ 2 lenze.
- 2) Emitting pore can have 7time high power then substruk type with parabola structure.
- 3) Ultra -compact surface mount package. (3mmx3mmx2mm)
- 4) It is possible to do Reflow.



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Forward current	lF	40	mA
Reverse voltage	VR	5	V
Power dissipation	Po	60	mW
Pulse forward current	IFP*	0.5	А
Operating temperature	Topr	-30~+85	°C
Storage temperature	Tstg	-40 ~ +100	°C

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

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Optical output	Po	_	3.5	_	mW	I=20mA
Emitting strength	le	0.9	_	7.1	mW/sr	I=20mA
Forward voltage	VF	_	1.2	1.5	V	I=20mA
Reverse current	lr	_	_	10	μΑ	V _R =3V
Peak light emitting wavelength	λР	_	950	_	nm	I=20mA
Spectral line half width	Δλ	_	40	_	nm	I=20mA
Half-viewing angle	θ1/2	_	±12	_	deg	I=20mA
Pesponse time	tr-tf	-	1.0	_	μs	I=20mA
Cut-off frequency	fc	_	1.0	_	MHz	I=20mA

SIM-012SB Data Sheet

•Electrical and optical characteristic curves

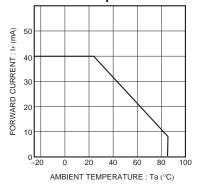


Fig.1 Forward current faloff

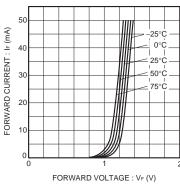


Fig.2 Forward current vs. forward voltage

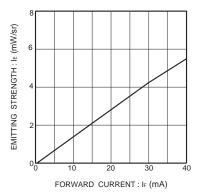


Fig.3 Emitting strength vs. forward current

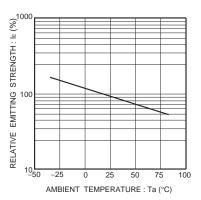


Fig.4 Relative emitting strength vs.ambient temperature

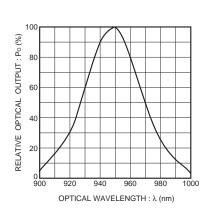


Fig.5 Wavelength

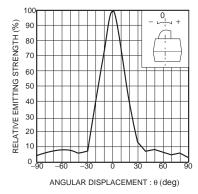


Fig.6 Directional pattern(1)

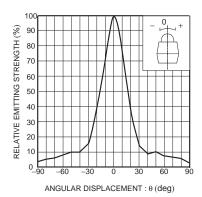


Fig.7 Directional pattern(2)

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