Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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SIM-030ST

Surface Mount High Output Infrared LEDs

Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Forward current	I_F	100	mA
Pulse forward current *1	I_{FP}	1	A
Reverse voltage	V_R	5	V
Power dissipation	P_D	180	mW
Operating temperature	Topr	-25 to + 85	°C
Storage temperature	Tstg	-40 to + 85	°C

*1 Pulse width 0.1msec,duty ratio1%

Applications

Light source for sensors
(proximity sensors,
signal transmission applications)

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.

Electrical and optical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	–	1.7	2.5	V	I_F=100mA
Reverse current	I_R	–	–	15	μA	V_R=5V
Peak light emitting wavelength	λ_{peak}	–	870	–	nm	I_F=100mA
Spectral line half width	$\Delta\lambda$	–	35	–	nm	I_F=100mA
View angle	$\theta_{1/2}$	–	±20	–	deg.	–
Radiant intensity	I_E	10	–	100	mW/sr	I_F=100mA

* Non-coherent infrared light emiting diode used.
* This product is not designed to be protected against electromagnetic wave.

Electrical and optical characteristics curves

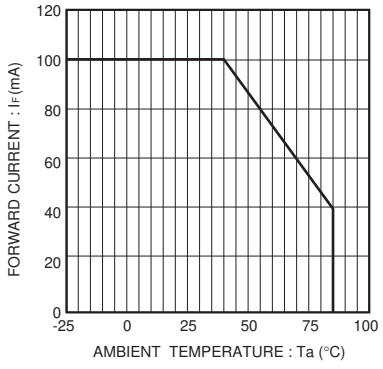


Fig.1 Forward current fall off

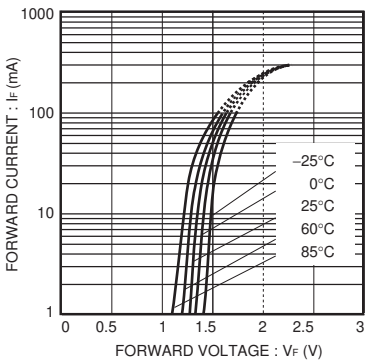


Fig.2 Forward current vs. Forward voltage

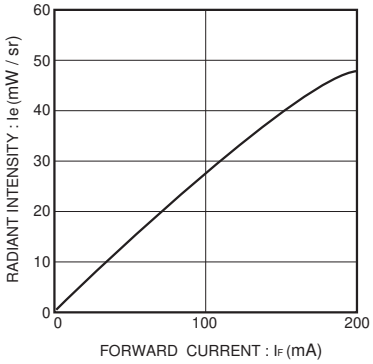


Fig.3 Radiant intensity vs. Forward current

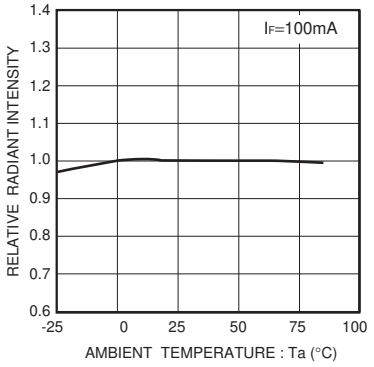


Fig.4 Relative radiant vs. Ambient temperature

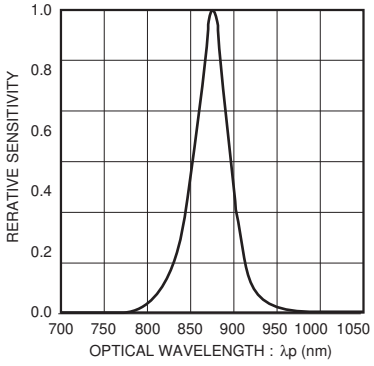


Fig.5 Spectrum data

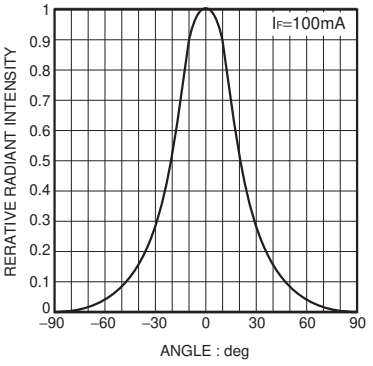
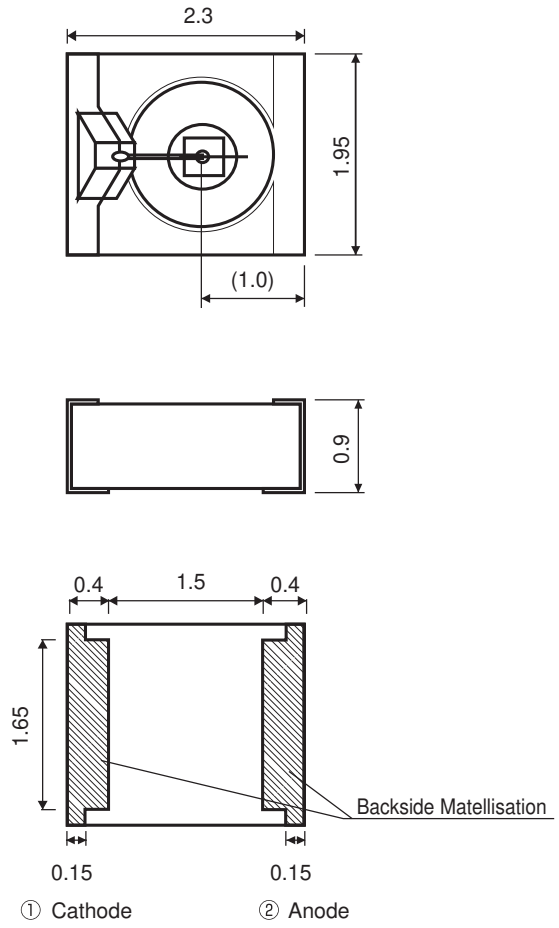


Fig.6 Radiant intensity

Dimensions (Unit : mm)



Internal connection diagram

Notes:
1. Unspecified tolerance shall be ±0.15 .
2. Dimension in parenthesis are show for reference.

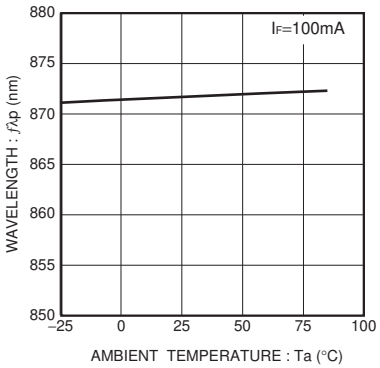


Fig.7 Wavelength vs. Ambient temperature

Notes

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