

Outline Dimensions

SB5311 / SB5311(B)

LED Lamp

unit: mm

PIN Connections

Anode
 Cathode

Features

- Colorless transparency lens type
- φ5mm(T-13/4) all plastic mold type
- ESD Protected (±2.0KV, 3 Times @100pF, 1.5KΩ)

STRAIGHT TYPE STOPPER TYPE: (B) 4.80~5.20 4.80~5.20 8.40~8.80 8.40~8.80 1.00 Max. 0.05 Typ. 0.05 Typ. 1.00 Max 1.20 Min. 0.50 Max. 0.06 Max 1.27 Typ. 26.00 Min. 26.00 Min. 50 Min 2.54 Typ. 2.54 Typ. 5.50~6.00 5.60~6.00 0.55 Max.

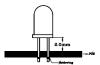
Absolute Maximum Ratings

(Ta=25℃)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_{D}	90	mW
Forward current	${ m I}_{\sf F}$	20	mA
*1Peak forward current	${ m I}_{\sf FP}$	50	mA
Reverse voltage	V_R	4	V
Operating temperature range	T_{opr}	-25~85	$^{\circ}$
Storage temperature range	T_{stg}	-30~100	$^{\circ}$
*2Soldering temperature	T_{sol}	260℃ for 10 seconds	

^{*1.}Duty ratio = 1/16, Pulse width = 0.1ms

^{*2.}Keep the distance more than 2.0mm from PCB to the bottom of LED package



* Recommend document

-. LED is very sensitive to ESD.

Electrical / Optical Characteristics

 $(Ta=25^{\circ}C)$

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_{F}	I _F = 20mA	-	4.0	4.6	V
* ⁴ Luminous intensity	I_{V}	I _F = 20mA	60	-	230	mcd
Peak wavelength	λ_{P}	I _F = 20mA	-	435	-	nm
Spectrum bandwidth	Δ_{λ}	I _F = 20mA	-	60	-	nm
Reverse current	I_{R}	V _R =4V	-	-	10	uA
* ³ Half angle	θ1/2	I _F = 20mA	-	±11	-	deg

^{*3.} θ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

^{*4.} Luminous Intensity Classification

K	L	М
68 ~ 100	100 ~ 155	155 ~ 230

KSD-O2O005-000

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^{*4.} Luminous intensity maximum tolerance for each grade classification limit is ±18%

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Characteristic Diagrams

Fig. 1 I_F - V_F

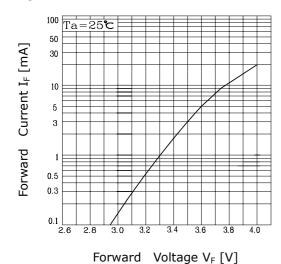


Fig. 2 I_V - I_F

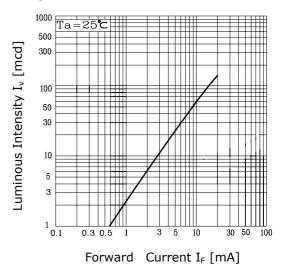


Fig. $3 I_F - Ta$

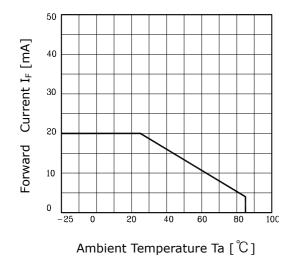


Fig.4 Spectrum Distribution

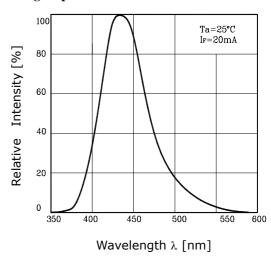
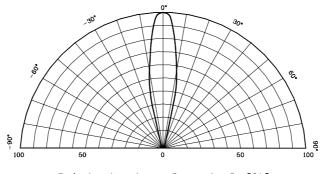


Fig. 5 Radiation Diagram



Relative Luminous Intensity Iv [%]

KSD-O2O005-000 3

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