

# SG5312-V / SG5312-V(B)

**High Brightness LED Lamp** 

unit: mm

#### **Features**

- Colorless transparency lens type
- φ5mm(T-13/4) all plastic mold type
- Low power consumption

**Outline Dimensions** 

### STRAIGHT **TYPE** STOPPER **TYPE**: (B) 4.60~5.00 4.60~5.00 8.80~9.20 0.05 Typ. 8.80~9.20 0.05 Typ. 1.40 Max 1.40 Max 1.20 Min. 3.30~4.30 0.60 Max 0.60 Max. 55 Max. 23.00 Min. 23.00 Min. \_1.00 <u>Min.</u> ▼ <sup>−</sup>1.00 Min. 🔻 2.54 Typ. 2.54 Typ. 5.45~6.05 5.45~6.05 0.55 Max. 0.55 Max

KSD-O2P008-000

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**Absolute Maximum Ratings** 

(Ta=25℃)

Characteristic	Symbol	Rating	Unit	
Power dissipation	P <sub>D</sub>	125	mW	
Forward current	${ m I}_{\sf F}$	30	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 <sub>sol</sub>	260℃ for 10 seconds		

<sup>\*1.</sup>Duty ratio = 1/16, Pulse width = 0.1ms

<sup>\*2.</sup>Keep the distance more than 2.0mm from PCB to the bottom of LED package



#### **Electrical / Optical Characteristics**

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

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Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F}$	I <sub>F</sub> = 20mA	-	3.5	4.2	V
Luminous intensity	$I_{V}$	I <sub>F</sub> = 20mA	2400	4000	-	mcd
Peak wavelength	$\lambda_{P}$	I <sub>F</sub> = 20mA	-	557	-	nm
Spectrum bandwidth	$\Delta_{\lambda}$	I <sub>F</sub> = 20mA	-	25	-	nm
Reverse current	$I_{R}$	V <sub>R</sub> =4V	10	-	-	uA
* <sup>3</sup> Half angle	θ1/2	I <sub>F</sub> = 20mA	-	±8	-	deg

<sup>\*3.</sup>  $\theta$ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

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<sup>\*4.</sup> Luminous intensity maximum tolerance for each grade classification limit is ±18%

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#### **Characteristic Diagrams**

Fig. 1  $I_F$  -  $V_F$ 

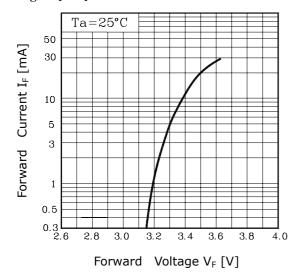


Fig. 2  $I_V$  -  $I_F$ 

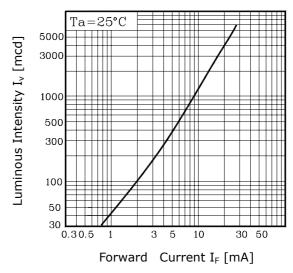
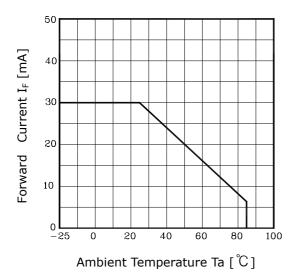


Fig.  $3 I_F - Ta$ 



**Fig.4 Spectrum Distribution** 

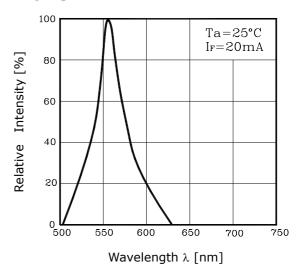
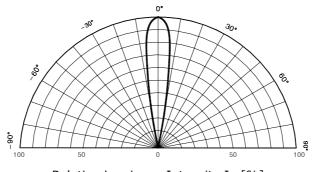


Fig. 5 Radiation Diagram



Relative Luminous Intensity Iv [%]

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