AUK Semiconductor

SPG2336E-G

High Brightness Chip LED

Features

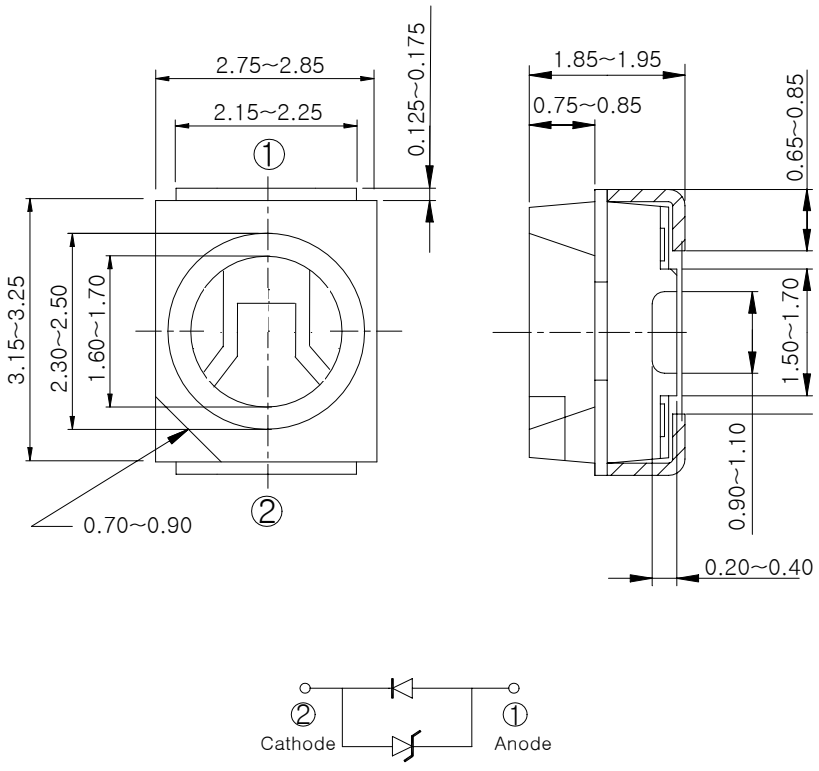
- Colorless transparency lens type
- Using a package with high heat dissipation properties, it can be driven with a large current
- Wide viewing angle
- External dimensions : 3.5(L)×2.8(W)×1.9mm(T) surface mount type
- **E ; ESD Protected (±2.0KV, 3 Times @100pF, 1.5KΩ)**

Applications

- Backlighting
- Signal indicator
- Symbol backlighting
- Front panel indicator

Outline Dimensions

unit : mm



PIN Connections
1. Anode
2. Cathode

Absolute Maximum Ratings

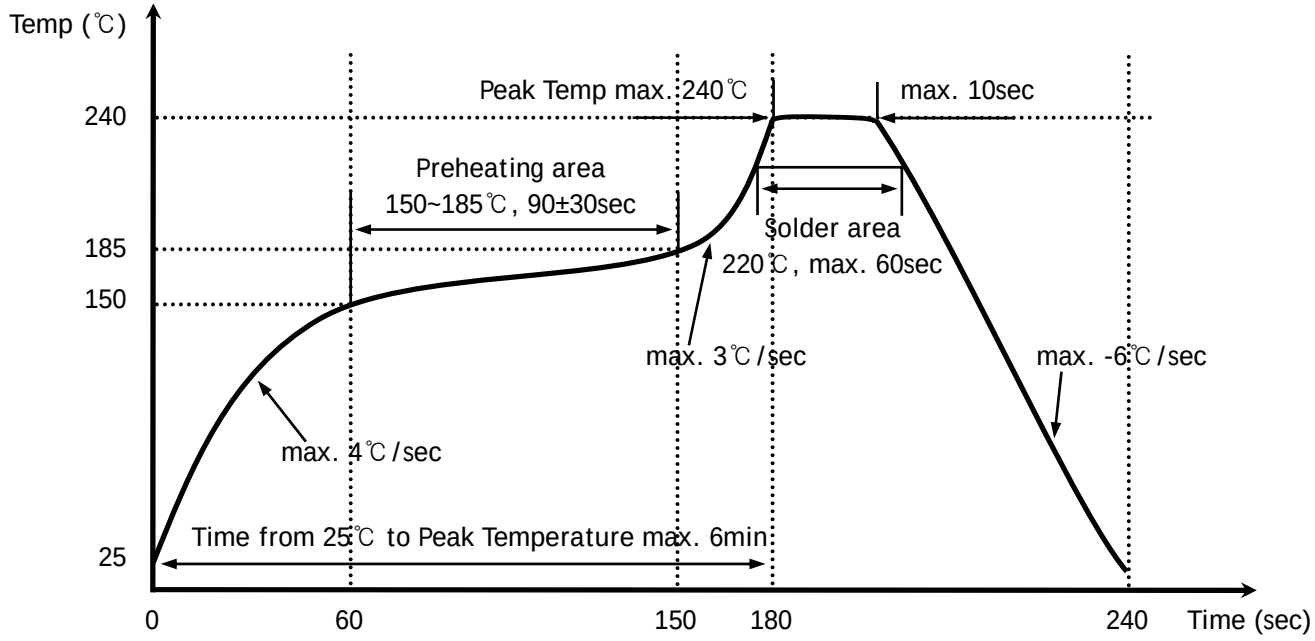
(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Power dissipation	P_D	110	mW
Forward current	I_F	30	mA
*[1]Peak forward current	I_{FP}	50	mA
Operating temperature range	T_{opr}	-40～100	℃
Storage temperature range	T_{stg}	-40～110	℃
*[2]Soldering temperature	T_{sol}	240℃ for 10 seconds	

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

*2. Recommended reflow soldering temperature profile

- Preheating 150℃ to 185℃ within 120 seconds soldering 240℃ within 10 seconds
  Gradual cooling (Avoid quenching)



Electrical / Optical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	V_F	I_F= 20mA	2.75	-	3.6	V
*[3]Luminous intensity	I_V	I_F= 20mA	220	-	550	mcd
Dominant wavelength	λ_D	I_F= 20mA	520	525	530	nm
Spectrum bandwidth	$\Delta\lambda$	I_F= 20mA	-	30	-	nm
*[4]Half angle	$\theta 1/2$	I_F= 20mA	-	±60	-	deg

*3. Luminous intensity maximum tolerance for each grade classification limit is ±18%

(The test result of I_F=20mA is only for reference)

*4. θ1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

- V_F / I_V / λ_D Grade Classification (Ta=25℃)

<table>
<tr><td colspan="3">Test Condition @ I_F=20mA</td></tr>
<tr><td>Forward Voltage [V]</td><td>Luminous Intensity [mcd]</td><td>Dominant Wavelangth [nm]</td></tr>
<tr><td>1 : 2.75~3.0</td><td rowspan="2">N : 220~310</td><td rowspan="2">a : 520~525</td></tr>
<tr><td>2 : 3.0~3.2</td></tr>
<tr><td>3 : 3.2~3.4</td><td rowspan="2">O : 310~410</td><td rowspan="2">b : 525~530</td></tr>
<tr><td>4 : 3.4~3.6</td><td>P : 410~550</td></tr>
</table>

(Do not use to combine grade classification. It must be used separately grade classification)

Characteristic Diagrams

Fig. 1 I_F - V_F

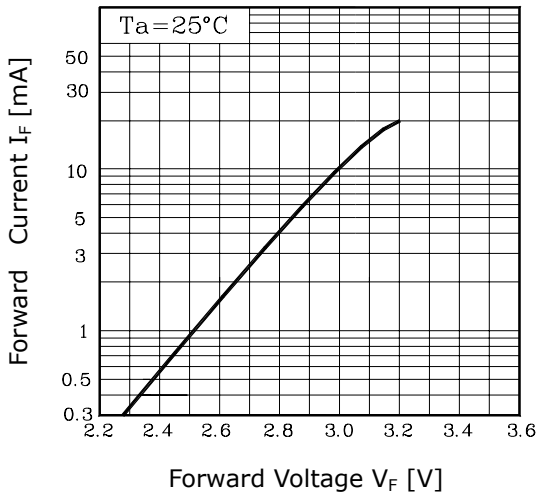


Fig. 2 I_V - I_F

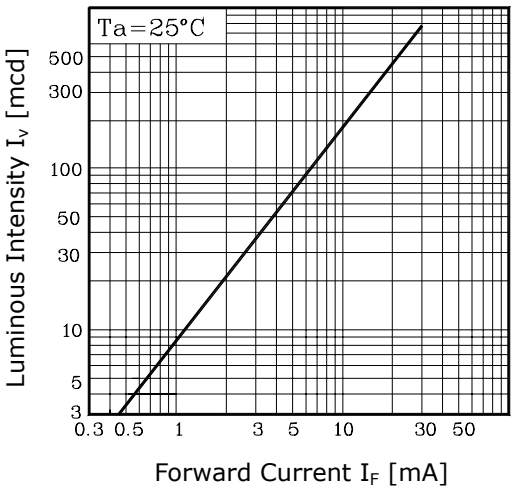


Fig. 3 I_F – Ta

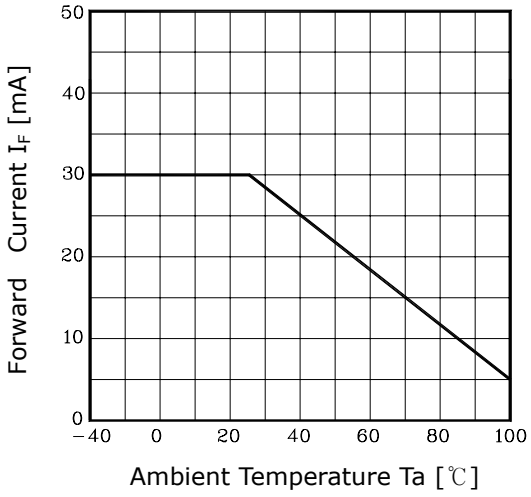


Fig.4 Spectrum Distribution

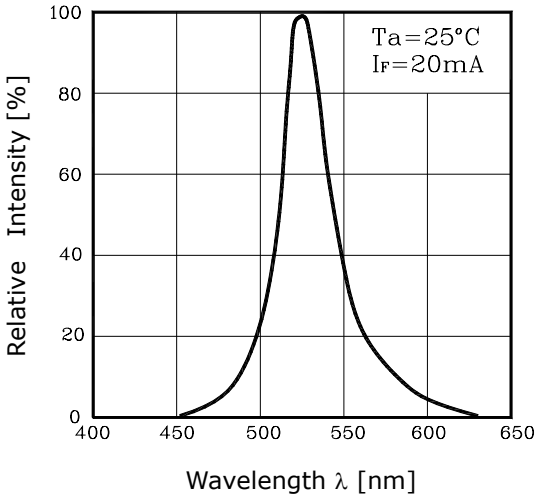
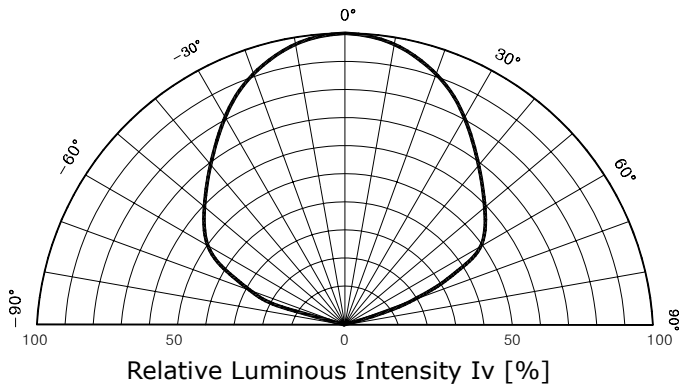


Fig. 5 Radiation Diagram



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