

SPG1316E-H

High Brightness Chip LED

Features

- 1.6mm(L)×0.8mm(W) small size surface mount type
- Thin package of 0.55mm(H) thickness
- Transparent clear lens optic
- Low power consumption type chip LED
- Emitting light green (530nm)
- E; ESD Protected (±2.0KV, 3 Times @100pF, 1.5KΩ)

Applications

- LCD backlighting
- Keypad backlighting
- Symbol backlighting
- Front panel indicator lamp

Outline Dimensions unit: mm 1.57~1.63 1.25~1.30 Quantity of the control of th

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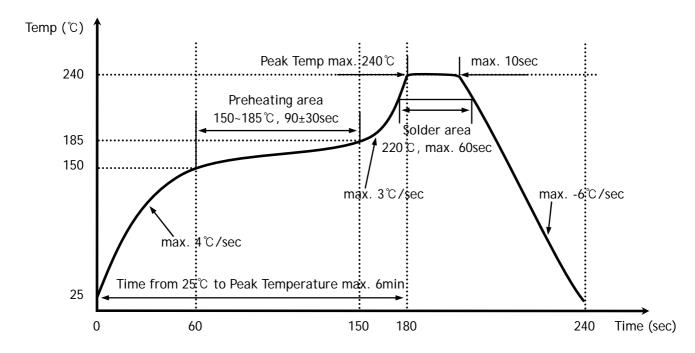
Absolute Maximum Ratings

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

Characteristic	Symbol	Rating	Unit
Power dissipation	P_{D}	64	mW
Forward current	I_{F}	20	mA
* ¹ Peak forward current	${ m I}_{\sf FP}$	50	mA
Operating temperature range	T _{opr}	-25~80	$^{\circ}$ C
Storage temperature range	T _{stg}	-30~100	$^{\circ}$
*2Soldering temperature	T _{sol}	240°C for 10 seconds	

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

⁻ Preheating 150 $^\circ$ to 185 $^\circ$ within 120 seconds soldering 240 $^\circ$ within 10 seconds Gradual cooling (Avoid quenching)



Electrical / Optical Characteristics

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

Characteristic	Sym	ibol	Test Condition	Min	Тур	Max	Unit
Forward voltage	٧	F	I _F = 5mA	2.6	-	3.2	V
* ⁴ Luminous intensity	I	٧	I _F = 5mA	33	-	95	mcd
Peak wavelength	λ	Р	I _F = 5mA	524	-	536	nm
Spectrum bandwidth	Δ	λ	I _F = 5mA	-	35	-	nm
* ³ Half angle	θ1/2	Χ	- I _F = 5mA	-	±65	-	deg
		Υ		-	±70	-	

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^{*2.} Recommended reflow soldering temperature profile

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- *3. θ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity
- *4. Luminous intensity maximum tolerance for each grade classification limit is $\pm 18\%$ (The test result of I_F =5mA is only for reference)
- V_F / I_V / λ_P Grade Classification (Ta=25 $^{\circ}{\circ}$)

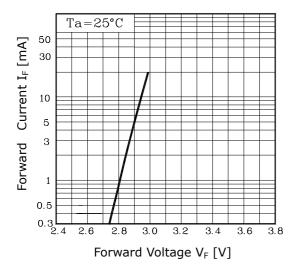
Test Condition @I _F = 5mA					
Forward Voltage [V]	Luminous Intensity [mcd]	Peak Wavelength [nm]			
2:2.6~2.8	A:33~43	524 . 520			
	B: 43~56	c : 524~530			
3:2.8~3.0	C : 56~73				
4:3.0~3.2	D . 72 OF	d:530~536			
	D: 73~95				

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

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Characteristic Diagrams

Fig. 1 I_F - V_F



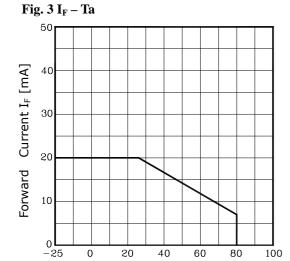
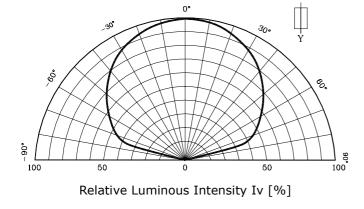
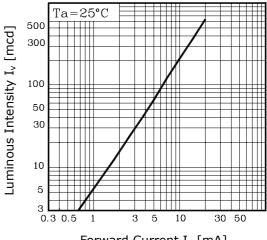


Fig. 5-1 Radiation Diagram(X)



Ambient Temperature Ta [$^{\circ}$]

Fig. 2 I_V - I_F



Forward Current I_F [mA]

Fig.4 Spectrum Distribution

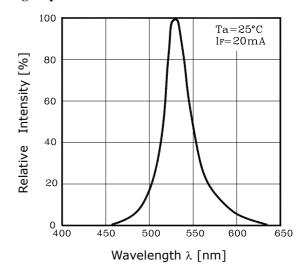
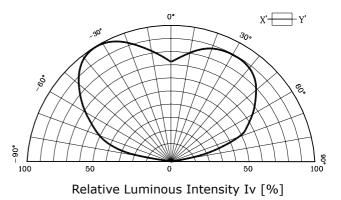


Fig. 5-2 Radiation Diagram(Y)



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