

SM1316-D

Chip LED Lamp

Features

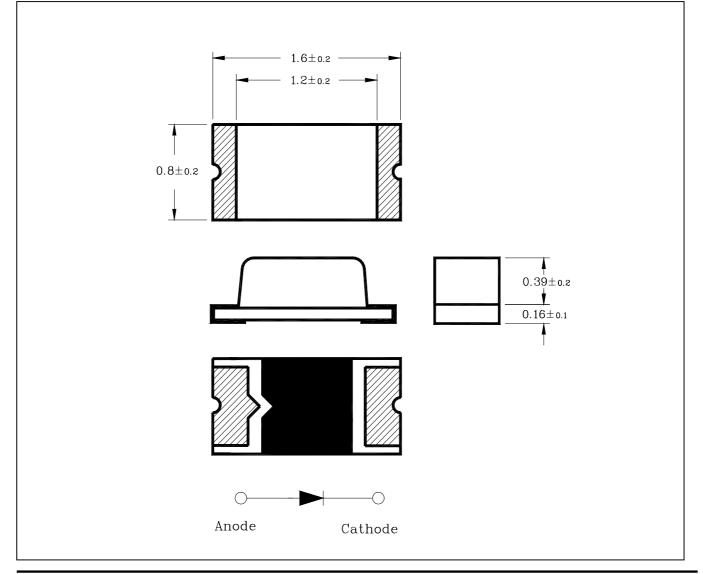
- 1.6mm(L)×0.8mm small size surface mount type
- Thin package of 0.55mm(H) thickness
- Transparent clear lens optic
- Low power consumption type chip led

Applications

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

Outline Dimensions

unit : mm

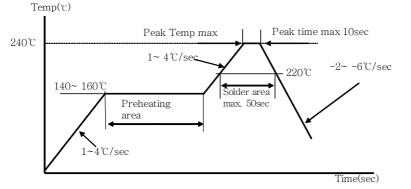


Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Power Dissipation	P _D	70	mW
Forward Current	I _F	25	mA
* ¹ Peak Forward Current	I_{FP}	50	mA
Reverse Voltage	V _R	4	V
Operating Temperature	T _{opr}	-25~80	Ĵ
Storage Temperature	T _{stg}	-30~100	Ĵ
* ² Soldering Temperature	T _{sol}	240℃ for 5 seconds	

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

*2.Recommended soldering Temperature Profile (Reflow Soldering)



Electrical Characteristics

Characteristic	Symbol	Test Condition	Min	Тур	Max	Unit
Forward Voltage	V _F	I _F = 10mA	-	2.0	2.6	V
* ⁴ Luminous Intensity	I _V	I _F = 10mA	6.6	15	27	mcd
* ⁵ Peak Wavelength	$\lambda_{ m P}$	I _F = 10mA	-	572	-	nm
Spectrum Bandwidth	Δ_{λ}	I _F = 10mA	-	30	-	nm
Reverse Current	_R	V _R =4V	-	-	10	uA
* ³ Half angle	θ1/2 X	I _F = 10mA	-	±65	-	deg
	91/2 Y		-	±70	-	

*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 $\pm 18\%$

*4. Luminous Intensity classification

F	G	Н
6.6~10	10~17	17~27

*5. Peak Wavelength Maximum tolerance for each Grade Classification limit is ± 1 nm

*5. Peak Wavelength classification

а	b ,	С
569~572	573~575	576~578

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Characteristic Diagrams

Fig. 1 I_F - V_F

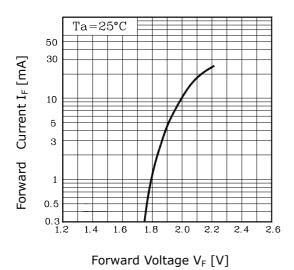


Fig. 3 I_F – Ta

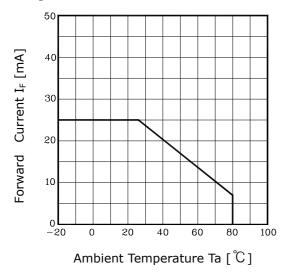
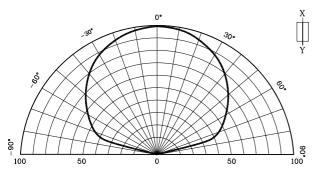


Fig. 5-1 Radiation Diagram(X)



Relative Luminous Intensity Iv [%]



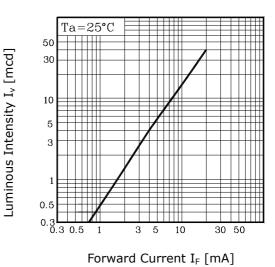


Fig.4 Spectrum Distribution

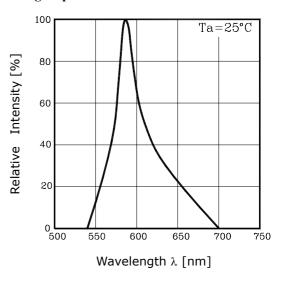
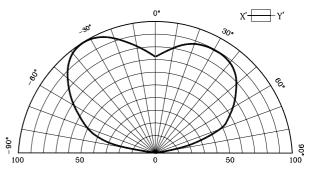


Fig. 5-2 Radiation Diagram(Y)



Relative Luminous Intensity Iv [%]

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