

## - 规格书 -

产品型号: SEA-0404

产品名称: LED模组

# SM SWITCH CO.,LTD

Add : 江苏省无锡市新吴区弘毅路8号金帛座706室  
韩国京畿道富川市三鹊路22号富川科技园103-506栋

TEL : +86-510-8591-9217

E-mail : SMSWITCH@SIMAOKJ.COM

Web : WWW.SIMAOKJ.CN



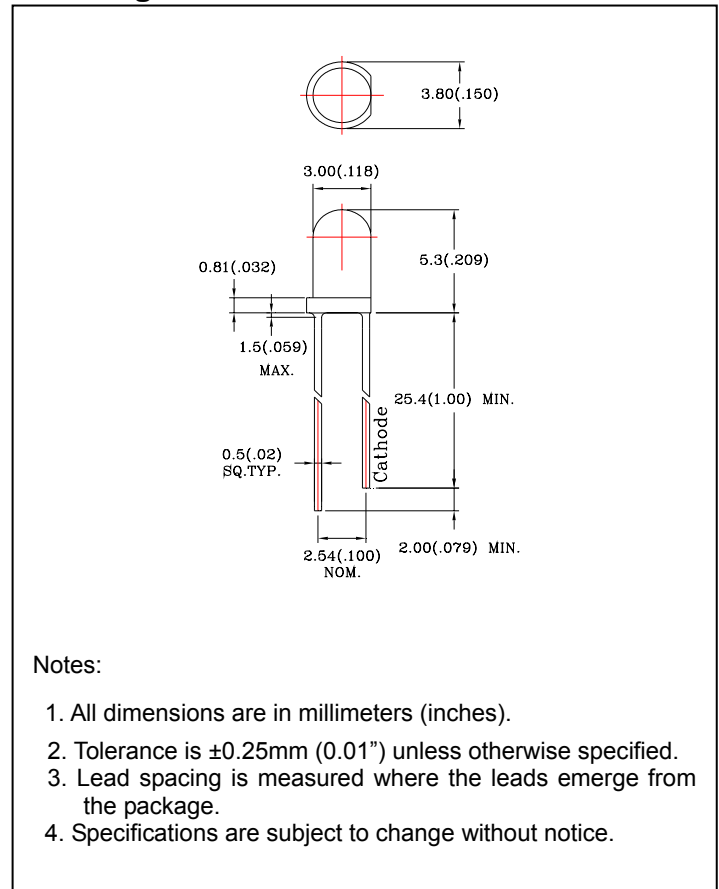
## ● Features:

1. Chip material: GaP/GaP
2. Emitted color : Bright Red
3. Lens Appearance : Red Diffused
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. Board or panel.
7. Low current requirement.
8. 3mm diameter package.
9. This product don't contained restriction substance, compliance ROHS standard.

## ● Applications:

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

## ● Package dimensions:



## ● Absolute maximum ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	40	mW
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current* <sup>1</sup>	I <sub>FP</sub>	50	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	Topr	-40°C~85°C	
Storage Temperature	Tstg	-40°C~100°C	
Soldering Temperature	Tsol	260°C max (for 5 seconds)	
Hand Soldering Temperature	Tsol	350°C max(for 3 seconds )	

\*<sup>1</sup>Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width.

## ● Electrical and optical characteristics(Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20mA$	-	2.3	2.6	V
Luminous Intensity	$I_V$	$I_F=20mA$	-	2.0	-	mcd
Reverse Current	$I_R$	$V_R=5V$	-	-	100	$\mu A$
Peak Wave Length	$\lambda_p$	$I_F=20mA$	-	700	-	nm
Dominant Wave Length	$\lambda_d$	$I_F=20mA$	-	650	-	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	-	100	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	-	35	-	deg

## ● Typical electro-optical characteristics curves

Fig.1 Relative intensity vs. Wavelength

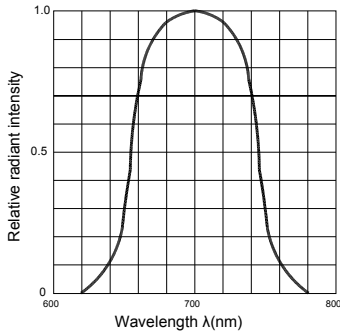


Fig.2 Forward current derating curve vs. Ambient temperature

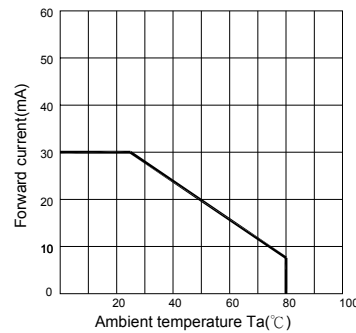


Fig.3 Forward current vs. Forward voltage

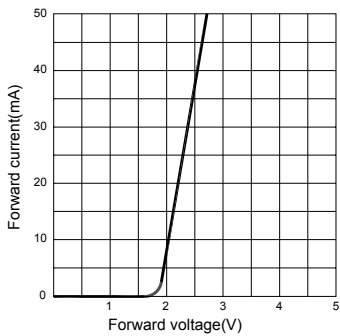


Fig.4 Relative luminous intensity vs. Ambient temperature

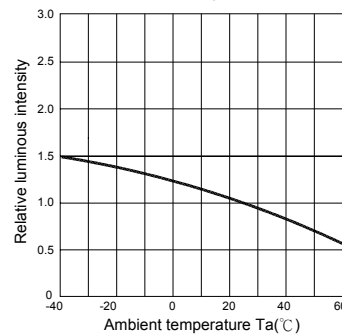


Fig.5 Relative luminous intensity vs. Forward current

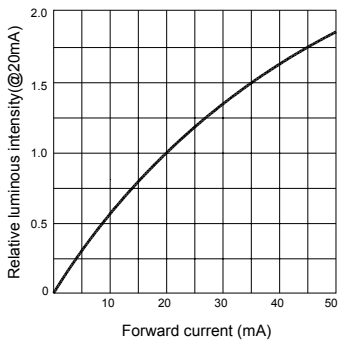
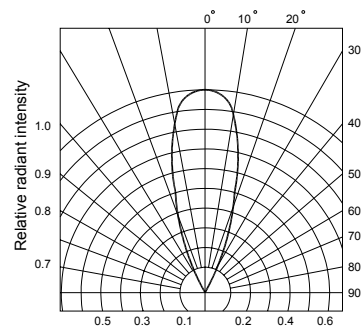


Fig.6 Radiation diagram



## ● Bin Limits

### 1. Intensity Bin Limits (At $I_F = 20\text{mA}$ )

Bin Code	Min. (mcd)	Max. (mcd)
C	0.7	1.0
D	1.0	1.6
E	1.6	2.4
F	2.4	3.7
G	3.7	5.5

## ● Bin : x



NOTES: 1. Tolerance of measurement of luminous intensity.

:  $\pm 15\%$

## ● DIP soldering (Wave Soldering)

Preheating :  $120^\circ\text{C}$ , within 120~180 sec.

Operation heating :  $255^\circ\text{C} \pm 5^\circ\text{C}$  within 5 sec.  $260^\circ\text{C}$  (Max)

Gradual Cooling (Avoid quenching).

