

- 规格书 -

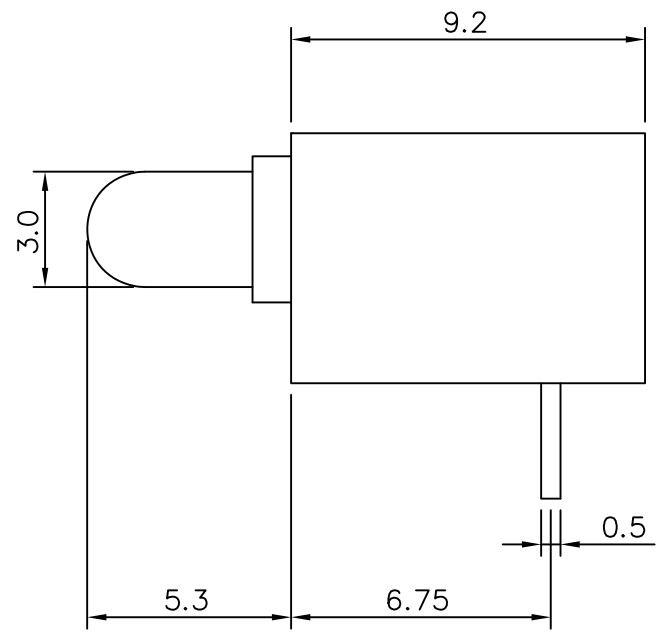
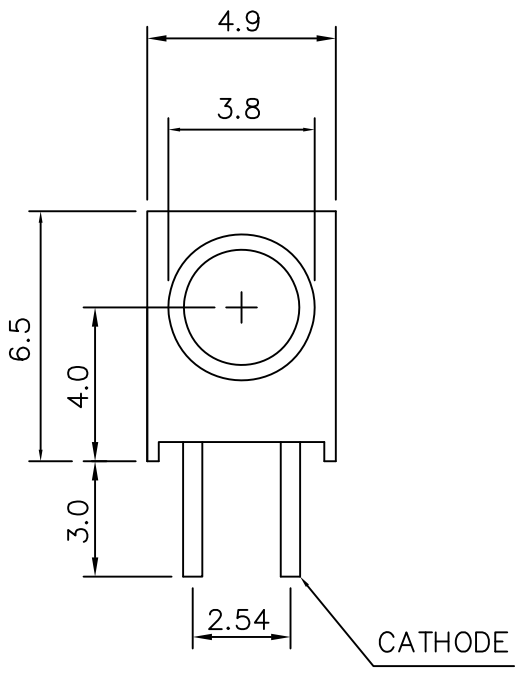
产品型号:

产品名称:

LED模组

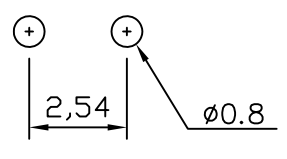
SM SWITCH CO.,LTD

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P.C.B DIMENSION

SEA-0404
Red (LED Color)



NOTE: GENERAL TOLERANCE ± 0.3

						MODEL	LED MODULE
				APPD	CHKD	DSGD	
						PART NAME	SEA-0404
				WANG Y.D	KIM J.S	LEE H.S	
DATA							SM SWITCH CO.,LTD

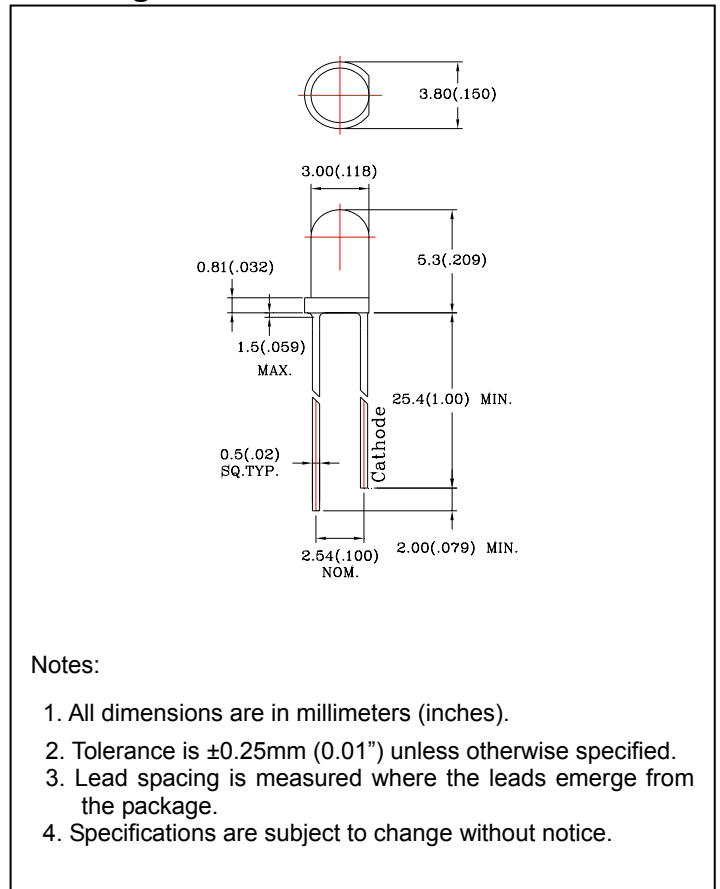
● Features:

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 _F	30	mA
Peak Forward Current* ¹	I _{FP}	50	mA
Reverse Voltage	V _R	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)	

*¹Condition for I_{FP} 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	$I_F=20\text{mA}$	-	2.3	2.6	V
Luminous Intensity	I_V	$I_F=20\text{mA}$	-	2.0	-	mcd
Reverse Current	I_R	$V_R=5\text{V}$	-	-	100	μA
Peak Wave Length	λ_p	$I_F=20\text{mA}$	-	700	-	nm
Dominant Wave Length	λ_d	$I_F=20\text{mA}$	-	650	-	nm
Spectral Line Half-width	$\Delta\lambda$	$I_F=20\text{mA}$	-	100	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	-	35	-	deg

● Typical electro-optical characteristics curves

Fig.1 Relative intensity vs. Wavelength

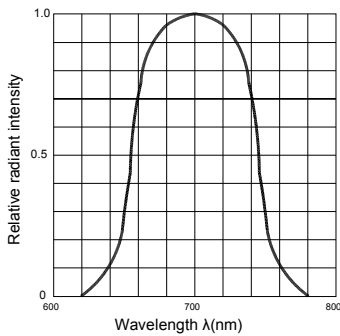


Fig.2 Forward current derating curve vs. Ambient temperature

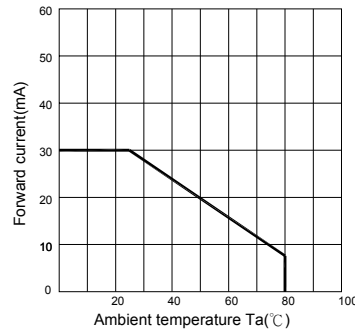


Fig.3 Forward current vs. Forward voltage

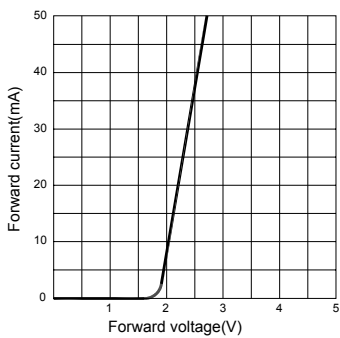


Fig.4 Relative luminous intensity vs. Ambient temperature

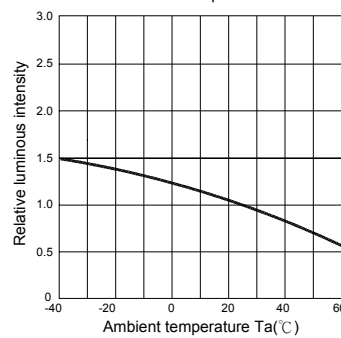


Fig.5 Relative luminous intensity vs. Forward current

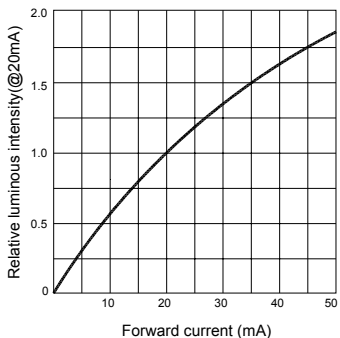
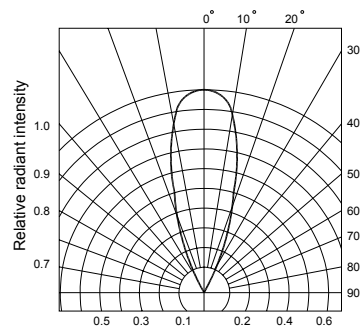


Fig.6 Radiation diagram



● 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°C , within 120~180 sec.

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

Gradual Cooling (Avoid quenching).

