

## - 规格书 -

产品型号:

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产品名称:

LED模组

# SM SWITCH CO.,LTD

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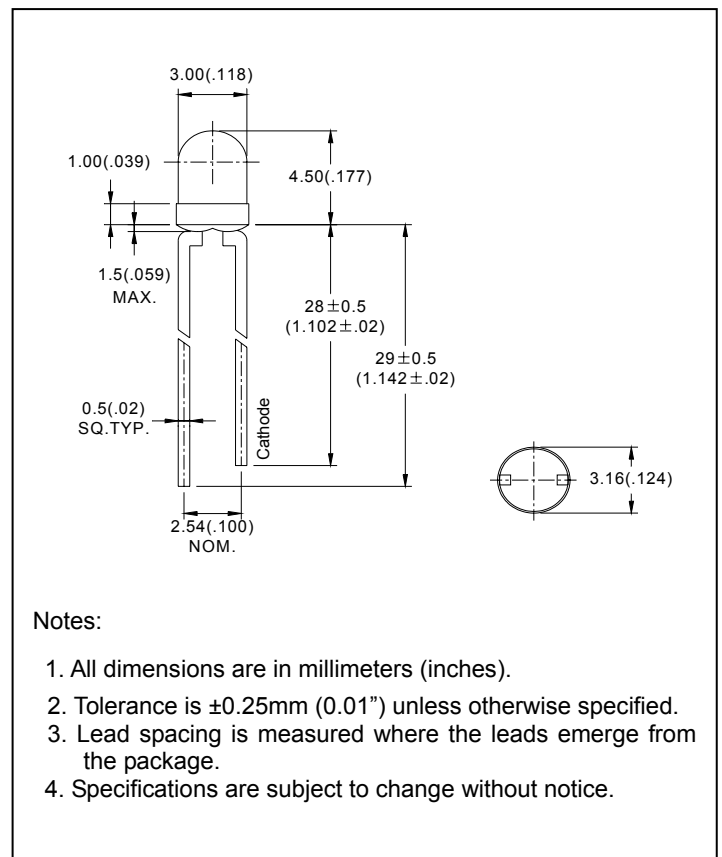
## ● Features:

1. Chip material: GaP /GaP
2. Emitted color : Green
3. Lens Appearance : Green 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( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	80	mW
Forward Current	$I_F$	30	mA
Peak Forward Current* <sup>1</sup>	$I_{FP}$	150	mA
Reverse Voltage	$V_R$	5	V
Operating Temperature	Topr	$-40^\circ\text{C} \sim 85^\circ\text{C}$	
Storage Temperature	Tstg	$-40^\circ\text{C} \sim 100^\circ\text{C}$	
Soldering Temperature	Tsol	260°C max (for 5 seconds)	
Hand Soldering Temperature	Tsol	350°C max(for 3 seconds )	

\*<sup>1</sup>Condition for  $I_{FP}$  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	$V_F$	$I_F=20mA$	-	2.2	2.6	V
Luminous Intensity	$I_v$	$I_F=20mA$	-	35	-	mcd
Reverse Current	$I_R$	$V_R=5V$	-	-	100	$\mu A$
Peak Wave Length	$\lambda_p$	$I_F=20mA$	-	568	-	nm
Dominant Wave Length	$\lambda_d$	$I_F=20mA$	560	-	576	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	-	30	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	-	45	-	deg

## ● Typical electro-optical characteristics curves

Fig.1 Relative intensity vs. Wavelength

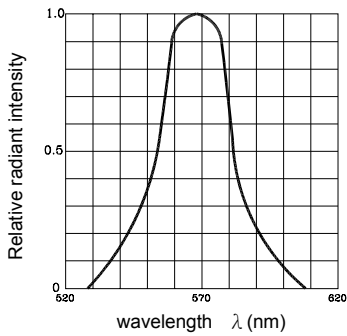


Fig.2 Forward current derating curve vs. Ambient temperature

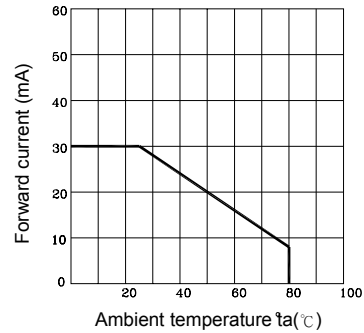


Fig.3 Forward current vs. Forward voltage

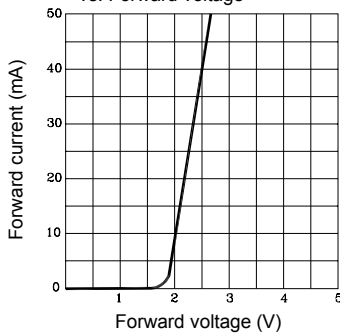


Fig.4 Relative luminous intensity vs. Ambient temperature

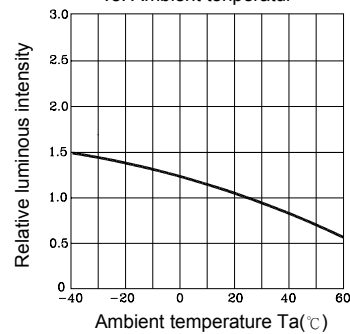


Fig.5 Relative luminous intensity vs. Forward current

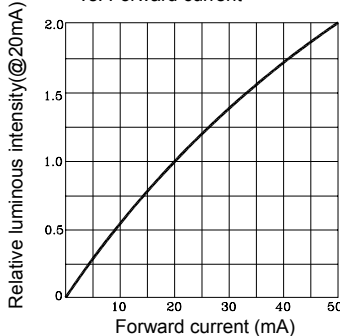
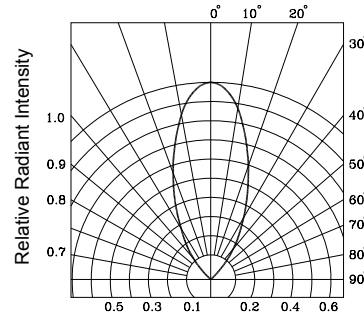


Fig.6 Radiation diagram



## ● Bin Limits

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

Bin Code	Min. (mcd)	Max. (mcd)
K	12.3	18.5
L	18.5	28
M	28	42
N	42	63
P	63	94

## ● 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).

