

Round LED

5mm, Yellow

multicomp^{PRO}

RoHS
Compliant



Features

- Low power consumption
- Excellent product quality and reliability
- Lead-free device

Applications

- Electronic signs and signals
- Bright ambient lighting conditions
- Backlight.
- General purpose indicators

Device Selection Guide

Part No.	Chip		Lens color
MP008550	Material	Emitted color	Yellow Diffuse
	AlGaInP	Yellow	

Absolute Maximum Ratings: (T_A = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	50	mW
Forward Current	I _F	30	mA
Peak Forward Current ^{*1}	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Operating Temperature	T _{OPR}	-40 to +85	°C
Storage Temperature	T _{STG}	-40 to +85	°C
Soldering Temperature ^{*2}	T _{SOI}	260°C For 5 Seconds	

Notes:

*1: Pulse width ≤ 0.1ms, Duty cycle ≤ 1/10

*2: 1.66mm below package base.

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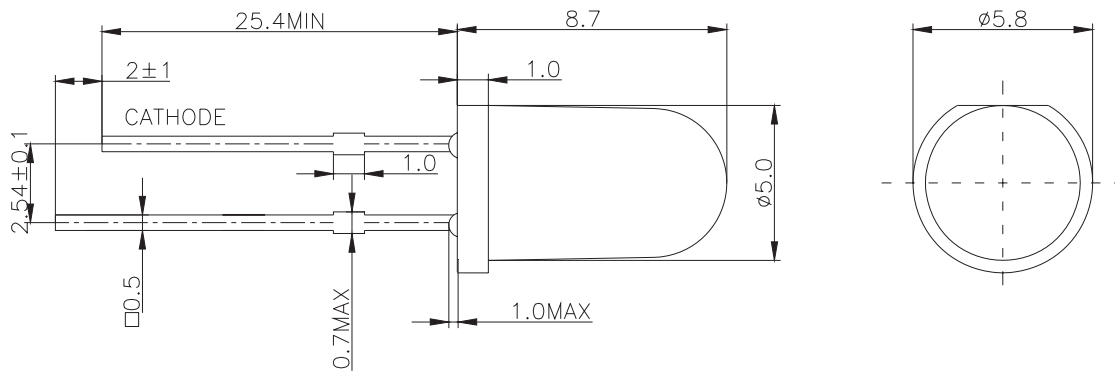
Electrical / Optical Characteristics at T _A = 25°C						
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	V _F	1.7	2	2.5	V	IF=20mA
Reverse Current	I _R	—	—	10	μA	VR=5V
Dominant Wavelength	λ _d	585	588	594	nm	IF=20mA
Peak Wavelength	λ _P	—	590	—	nm	
Spectral line Half-width	Δλ	—	15	—	nm	
Luminous Intensity	I _v	1000	1700	2500	mcd	
Power Angle	2θ1/2	—	15	—	Deg.	

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or dominant wavelength), the typical accuracy of the sorting process is as follows:

1. Dominant Wavelength: +/-1nm
2. Chromatic Coordinates: +/-0.01
3. Luminous Intensity: +/-15%
4. Forward Voltage: +/-0.1V
5. The design and working current for LED is not less than 2mA.

Dimensions



Dimensions : Millimetres

Notes:

1. Tolerance is ±0.25 unless otherwise noted.
2. Lead spacing is measured where the leads emerge from the package.
3. Specifications are subject to change without notice.
4. The design and working current for LED is not less than 2mA.

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VF Rank

Rank	VF(V)		Condition
	Min	Max	
A1A2	1.7	1.9	IF=20mA
B1B2	1.9	2.1	
C1C2	2.1	2.3	
D1D2	2.3	2.5	

Tolerance : $\pm 0.1V$

λD Rank

Rank	λD (nm)		Condition
	Min	Max	
Y4	586	588	IF=20mA
Y5	588	590	
Y6	590	592	
Y7	592	594	

Tolerance : $\pm 0.1nm$

IV Rank

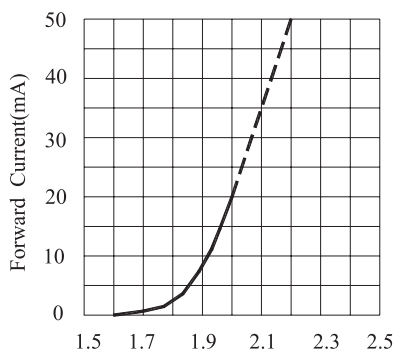
Rank	IV(mcd)		Condition
	Min	Max	
N	1000	1700	IF=20mA
O	1700	2500	

Tolerance : $\pm 15\%$

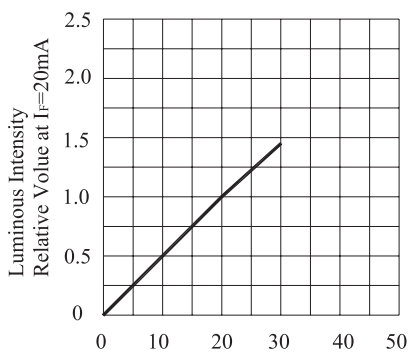
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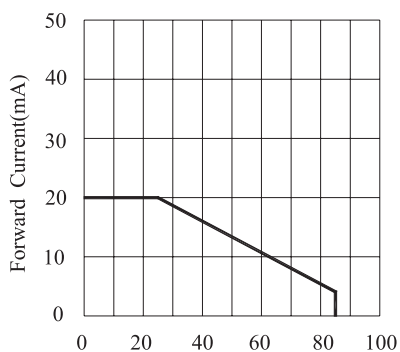
Typical Electrical/Optical Characteristics Curves



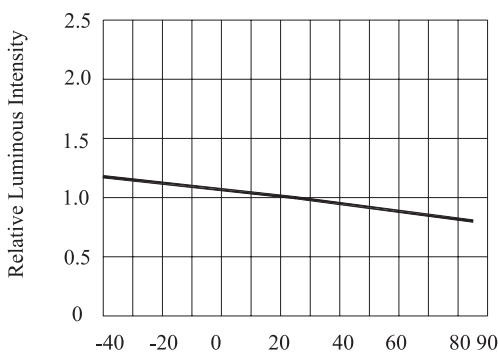
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

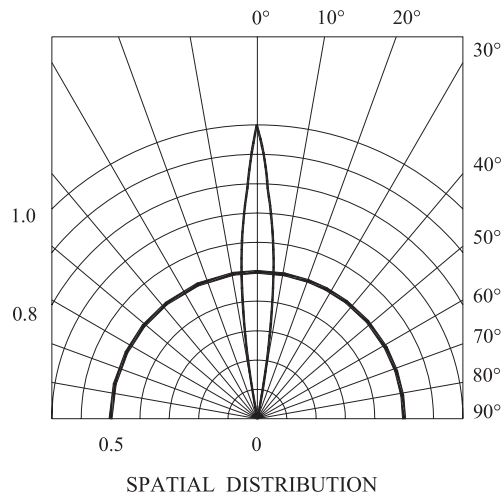
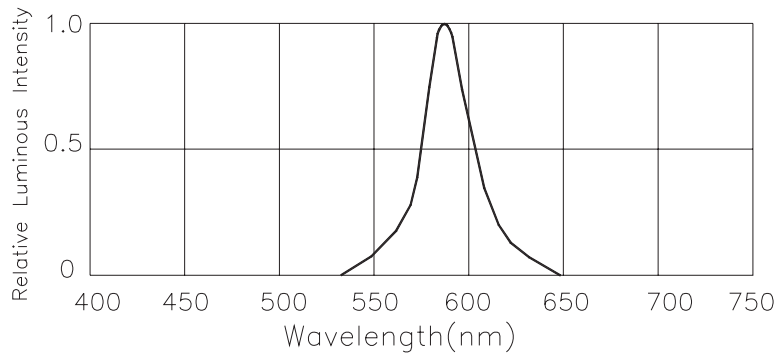


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

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Part Number Table

Description	Part Number
Round LED, Yellow, 590nm, 15°, 1700mcd, Through hole	MP008550

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