Round LED
5mm, Green

RoHS Compliant

Features

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

Applications

- Electronic signs and signals
- Bright ambient lighting conditions
- Backlings.
- General purpose indicatiors

Device Selection Guide			
Part No.	**Chip**		**Lens color**
MP008540	Material	Emitted color	Water Clear
	InGaN	Green	

Absolute Maximum Ratings: (T_A = 25°C)			
Parameter	**Symbol**	**Value**	**Unit**
Power Dissipation	P_D	120	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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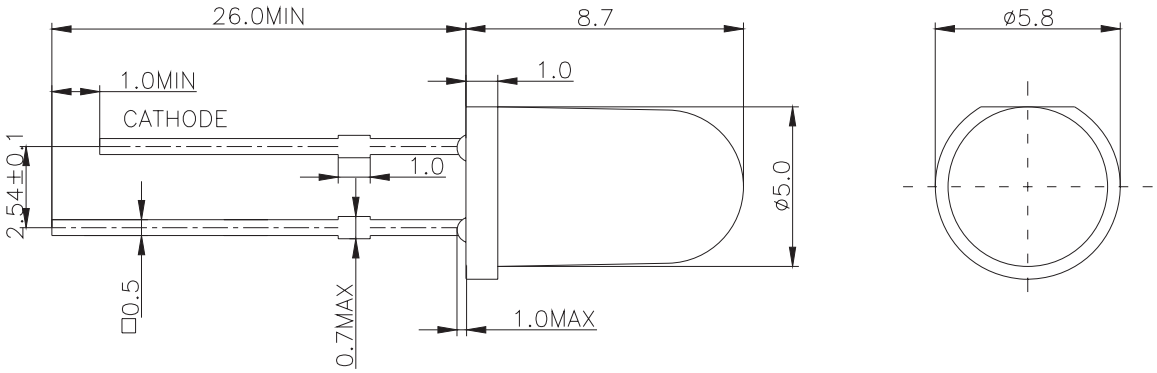
Electrical / Optical Characterisitics at T_A = 25°C						
Parameter	**Symbol**	**Min.**	**Typ.**	**Max**	**Unit**	**Test Conditions**
Forward Voltage	V_F	—	3.2	—	V	IF=20mA
Reverse Current	I_R	—	—	10	μA	VR=5V
Dominant Wavelength	λd	—	518	—	nm	IF=20mA
Peak Wavelength	λP	—	515	—	nm	
Spectral line Half-width	Δλ	—	30	—	nm	
Luminous Intensity	I_V	—	15000	—	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.

VF Rank

Rank	VF(V)		Condition
	Min	Max	
F2G1	2.8	3	IF=20mA
G2H1	3	3.2	
H2I1	3.2	3.4	
I2J1	3.4	3.6	

Tolerance : ±0.1V

λD Rank

Rank	λD (nm)		Condition
	Min	Max	
G8	514	516	IF=20mA
G9	516	518	
GA	518	520	
GB	520	522	

Tolerance : ±0.1nm

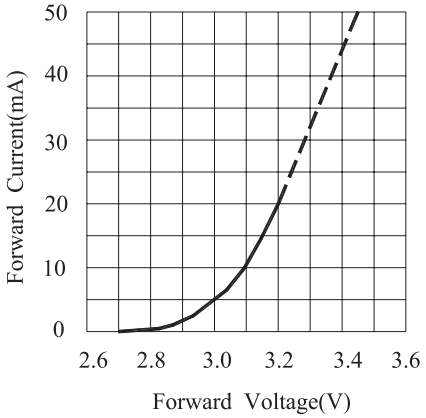
IV Rank

Rank	IV(mcd)		Condition
	Min	Max	
R	8000	12000	IF=20mA
S	12000	18000	

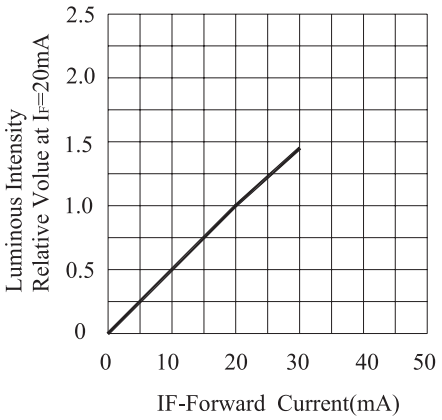
Tolerance : ±15%

Typical Electrical/Optical Characteristics Curves

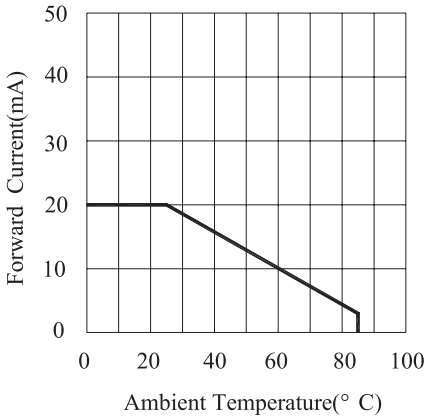
(Ta=25°C Unless Otherwise Noted)



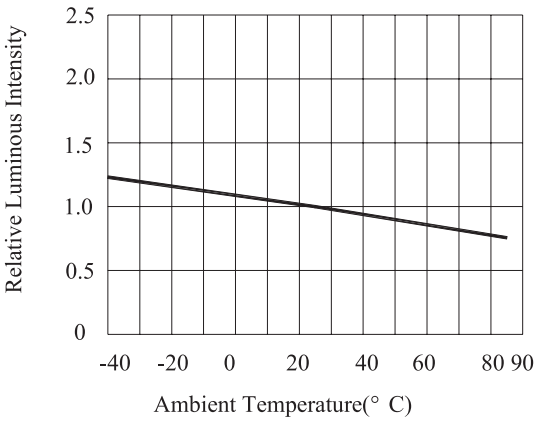
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPARATURE

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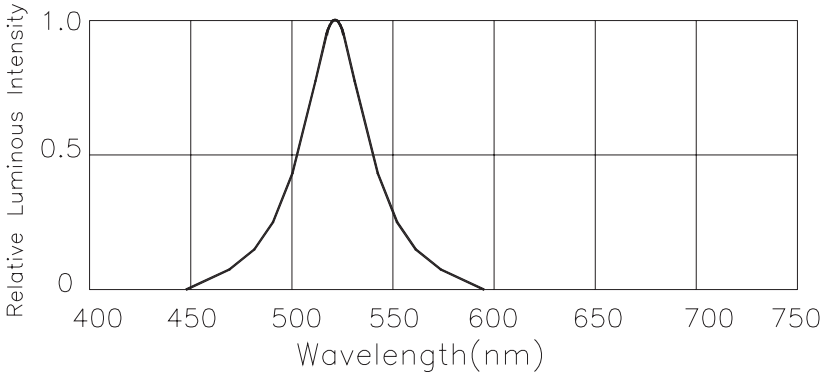

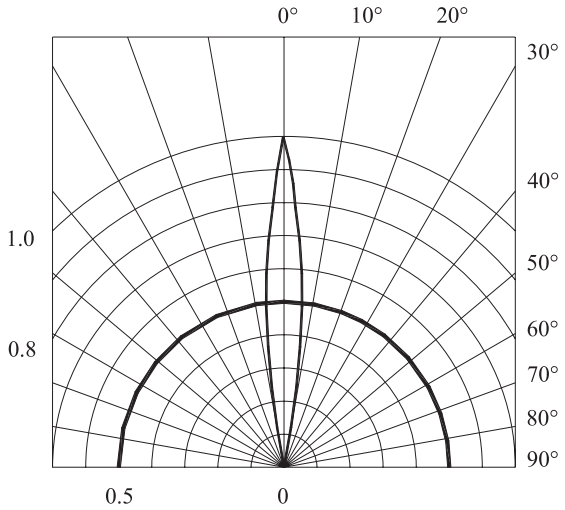

SPATIAL DISTRIBUTION

Part Number Table

Description	Part Number
Round LED, Green, 515nm, 15°, 15000mcd, Through hole	MP008540