Round LED
3mm, Blue

RoHS Compliant

Features

- 3mm Rounded LED Lamps
- Low power consumption
- Excellent product quality and reliability
- Lead-free device

Applications

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

Device Selection Guide			
Part No.	**Chip**		**Lens color**
MP008524	Material	Emitted color	Water Clear
	InGaN	Blue	

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: ∆At the position of 3mm below package base.
*3: ▲Plese refer to the curve of forward current vs. temperature

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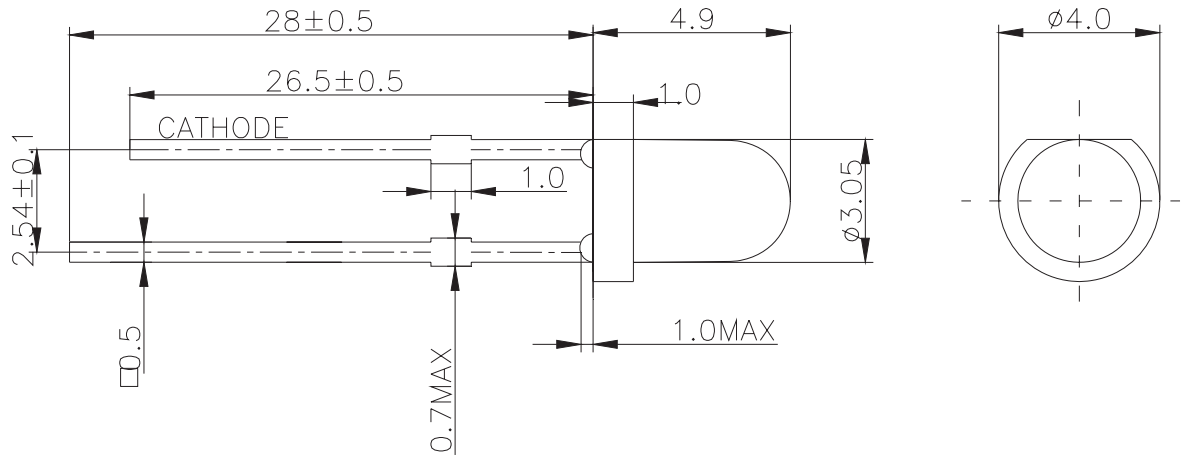
Electrical / Optical Characterisitics at T_A = 25°C						
Parameter	**Symbol**	**Min.**	**Typ.**	**Max**	**Unit**	**Test Conditions**
Forward Voltage	V_F	2.7	3	3.5	V	IF=20mA
Reverse Current	I_R	—	—	10	μA	VR=5V
Dominant Wavelength	λd	464	468	474	nm	IF=20mA
Peak Wavelength	λP	—	465	—	nm	
Spectral line Half-width	Δλ	—	21	—	nm	
Luminous Intensity	I_V	1700	3000	5700	mcd	
Power Angle	2θ1/2	—	20	—	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%

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.

Forward Voltage Combination (V at 20mA)

Rank	VF(V)		Condition
	Min	Max	
F1F2	2.7	2.9	IF=20mA
G1G2	2.9	3.1	
H1H2	3.1	3.3	
I1I2	3.3	3.5	

Tolerance : ±0.1V

Dominant wavelength combination (λD at 20mA)

Rank	λD (nm)		Condition
	Min	Max	
B8	464	466	IF=20mA
B9	466	468	
BA	468	470	
BB	470	472	
BC	472	474	

Tolerance : ±0.1nm

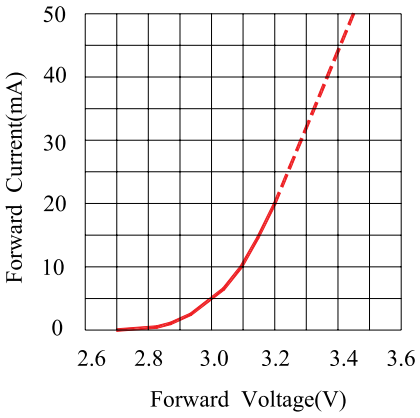
Luminous Intensity Combination (mcd at 20mA)

Rank	IV(mcd)		Condition
	Min	Max	
O	1700	2500	IF=20mA
P	2500	3800	
P1	3800	5700	

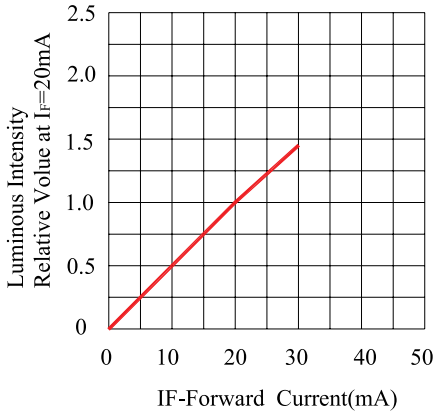
Tolerance : ±15%

Typical Electrical/Optical Characteristics Curves

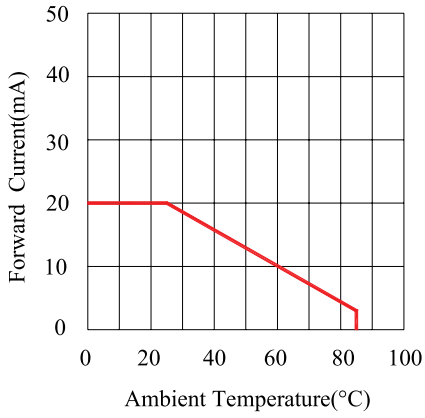
(Ta=25°C Unless Otherwise Noted)



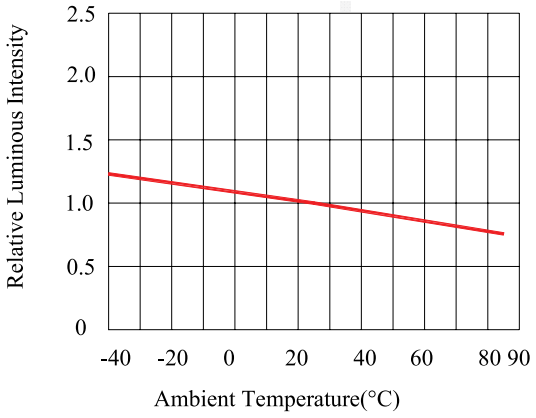
FORWARD CURRENT Vs.
FORWARD VOLTAGE



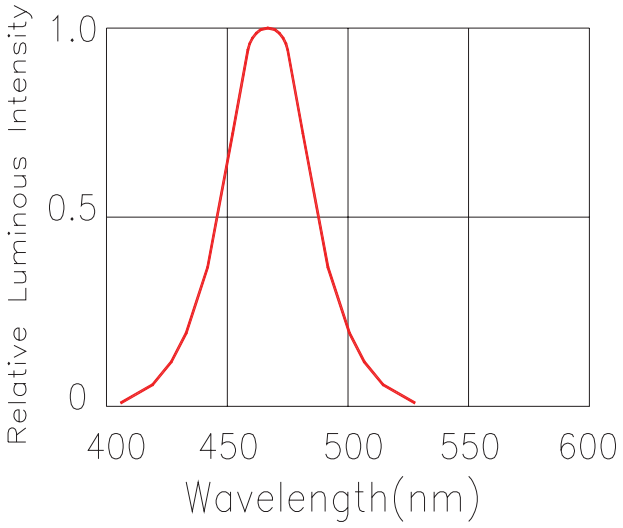
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

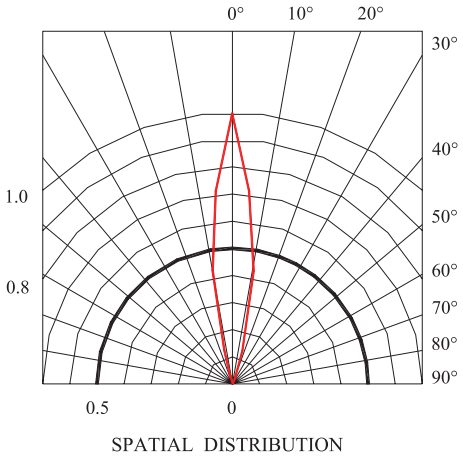


FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPARATURE





Part Number Table

Description	Part Number
Round LED, Blue, 465nm, 20°,3000mcd, Through hole	MP008524