

Round LED

5mm, White

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
- Backlights.
- General purpose indicators

Device Selection Guide

Part No.	Chip		Lens color
MP008547	Material	Emitted color	Water Clear
	InGaN	White	

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: 1.6mm below package base.

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Electrical / Optical Characteristics at T_A = 25°C

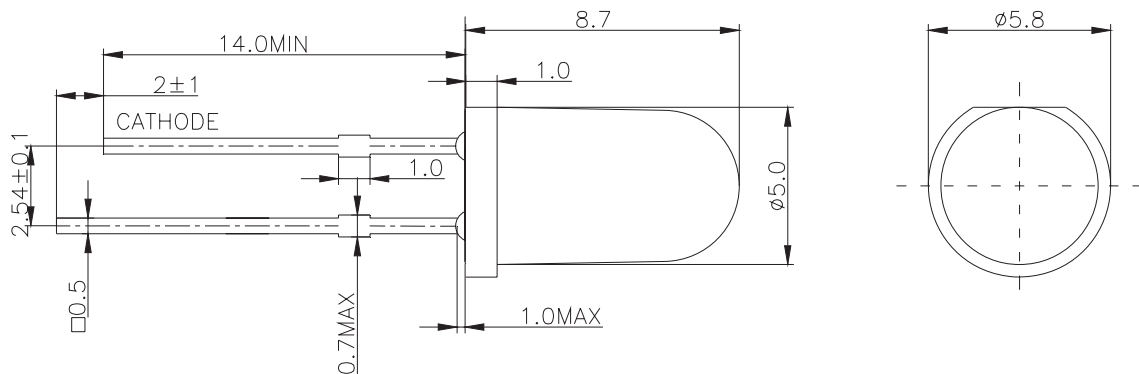
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V _F	—	3.2	—	V	I _F = 20mA
Reverse Current	I _R	—	-	10	uA	V _R =5V
Chromaticity Coordinates	X	—	0.3	—	nm	I _F =20mA
	Y	—	0.31	—	nm	
Luminous Intensity	I _V	—	27000	—	mcd	
Power Angle	2θ _{1/2}	—	20	—	Deg.	

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%
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	I _F =20mA
G2H1	3	3.2	
H2I1	3.2	3.4	
I2J1	3.4	3.6	

Tolerance: ±0.1V

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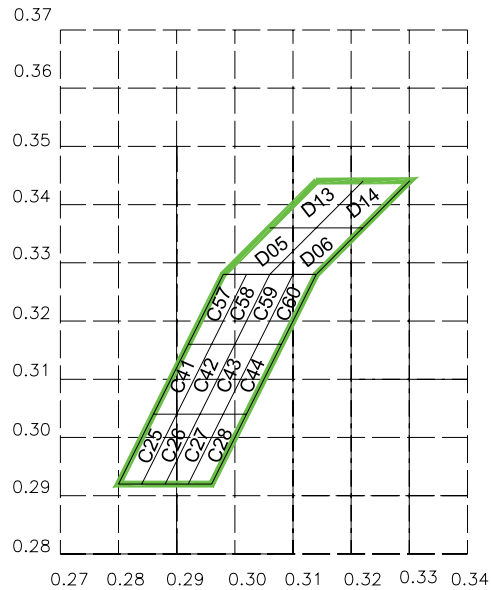
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IV Rank

Rank	IV(mcd)		Condition
	Min	Max	
T	18000	27000	IF=20mA
U	27000	38000	

Tolerance: ±15%

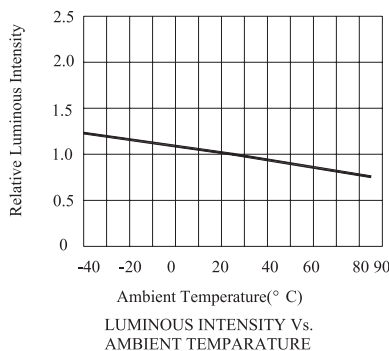
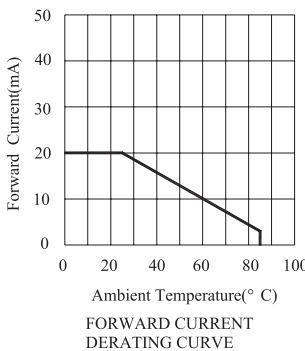
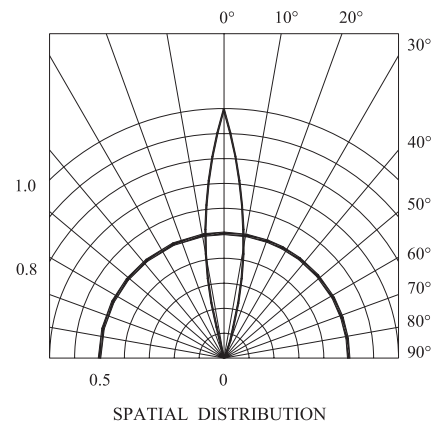
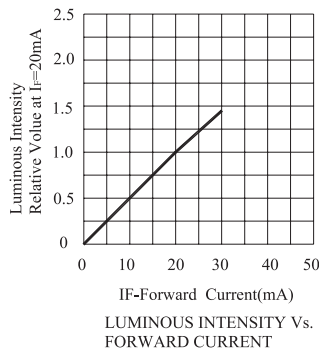
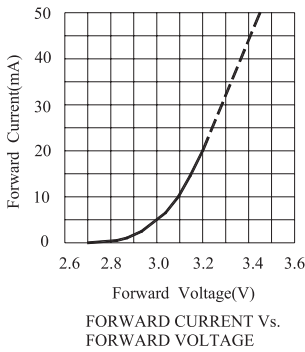


C25	X	0.280	0.286	0.290	0.284	C57	X	0.292	0.298	0.302	0.296
	Y	0.292	0.304	0.304	0.292		Y	0.316	0.328	0.328	0.316
C26	X	0.284	0.290	0.294	0.288	C58	X	0.296	0.302	0.306	0.300
	Y	0.292	0.304	0.304	0.292		Y	0.316	0.328	0.328	0.316
C27	X	0.288	0.294	0.298	0.292	C59	X	0.300	0.306	0.310	0.304
	Y	0.292	0.304	0.304	0.292		Y	0.316	0.328	0.328	0.316
C28	X	0.292	0.298	0.302	0.296	C60	X	0.304	0.310	0.314	0.308
	Y	0.292	0.304	0.304	0.292		Y	0.316	0.328	0.328	0.316
C41	X	0.286	0.292	0.296	0.290	D05	X	0.298	0.306	0.314	0.306
	Y	0.304	0.316	0.316	0.304		Y	0.328	0.336	0.336	0.328
C42	X	0.290	0.296	0.300	0.294	D06	X	0.306	0.314	0.322	0.314
	Y	0.304	0.316	0.316	0.304		Y	0.328	0.336	0.336	0.328
C43	X	0.294	0.300	0.304	0.298	D13	X	0.306	0.314	0.322	0.314
	Y	0.304	0.316	0.316	0.304		Y	0.336	0.344	0.344	0.336
C44	X	0.298	0.304	0.308	0.302	D14	X	0.314	0.322	0.330	0.322
	Y	0.304	0.316	0.316	0.304		Y	0.336	0.344	0.344	0.336

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Typical Electrical/Optical Characteristics Curves (Ta=25°C Unless Otherwise Noted)



Part Number Table

Description	Part Number
Round LED, White, 120mW, 20°, 27000mcd, Through hole	MP008547

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