

Round LED

3mm, Red/Blue

multicomp **PRO**

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
- Backlight.
- General purpose indicators

Device Selection Guide

Part No.	Chip		Lens color
MP008535	Material	Emitted color	White Diffused
	InGaN	Red	
	GaAsP	Blue	

Absolute Maximum Ratings: (T_A = 25°C)

Parameter	Symbol	Value		Unit
		Red	Blue	
Power Dissipation	P _D	50	120	mW
Forward Current	I _F	20		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: ΔAt the position of 3mm below package base.

*3: ▲Please refer to the curve of forward current vs. temperature

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

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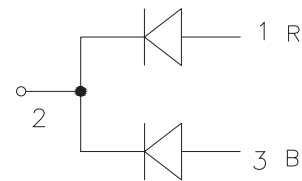
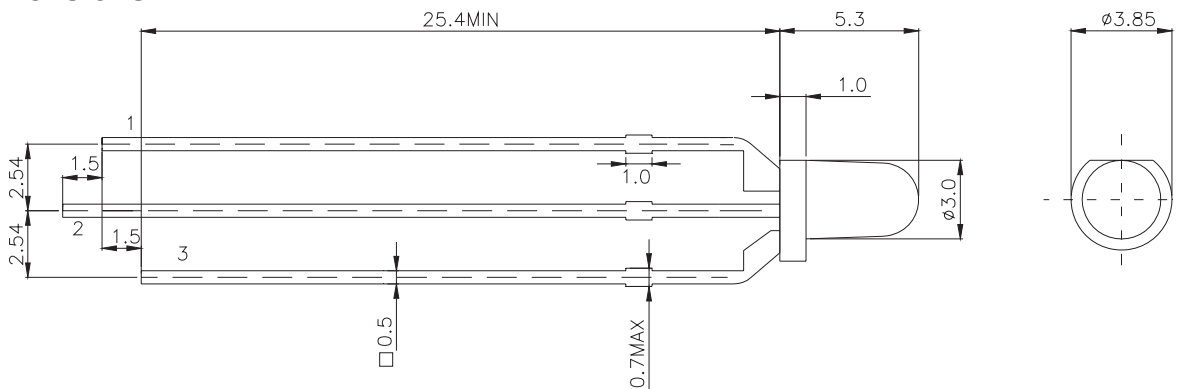
Electrical / Optical Characteristics at T _A = 25°C							
Parameter		Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	Red	V _F	1.8	2	2.6	V	IF=20mA
	Blue	V _F	2.8	3	3.6	V	
Luminous Intensity	Red	I _R	—	—	10	μA	VR=5V
	Blue	I _R	—	—	10	μA	
Dominant Wavelength	Red	λ _d	620	622	630	nm	IF=20mA
	Blue	λ _d	464	468	474	nm	
Peak Wavelength	Red	λ _P	—	630	—	nm	
	Blue	λ _P	—	465	—	nm	
Spectral line Half-width	Red	Δλ	—	20	—	nm	
	Blue	Δλ	—	21	—	nm	
Luminous Intensity	Red	I _v	110	370	—	mcd	
	Blue	I _v	250	480	—	mcd	
Power Angle		2θ1/2	—	—	—	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



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.

Dimensions : Millimetres

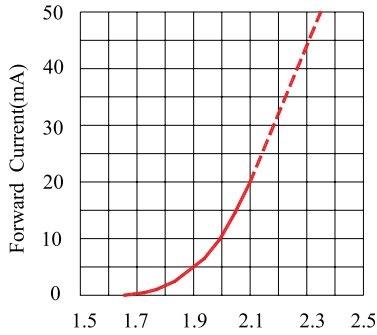
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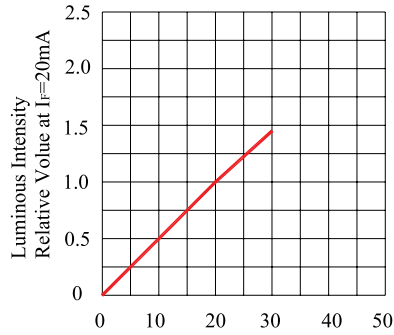
Typical Electrical/Optical Characteristics Curves

(Ta=25°C Unless Otherwise Noted)

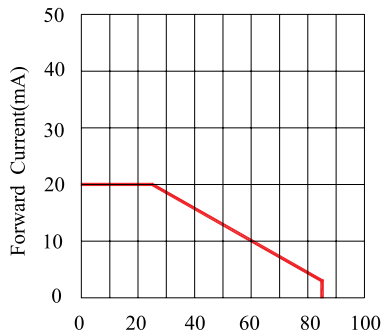
Red



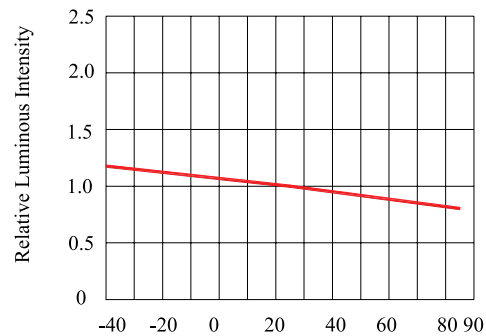
FORWARD CURRENT Vs. FORWARD VOLTAGE



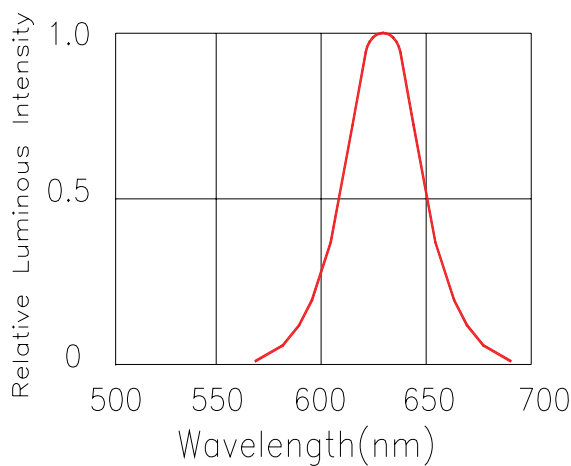
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



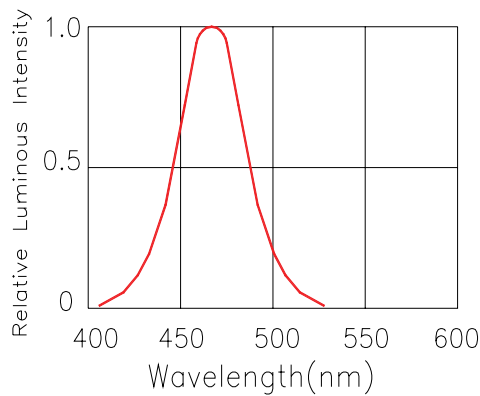
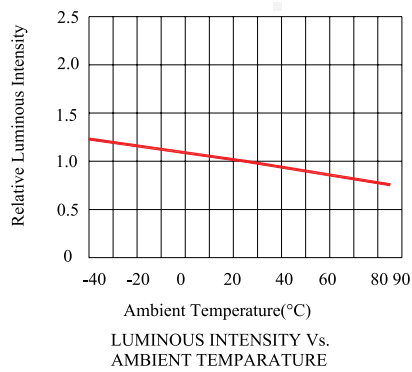
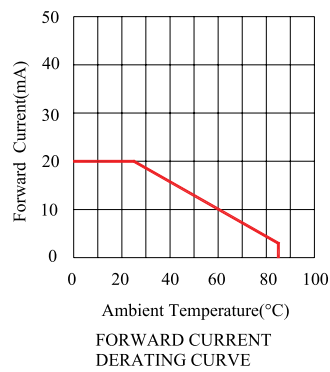
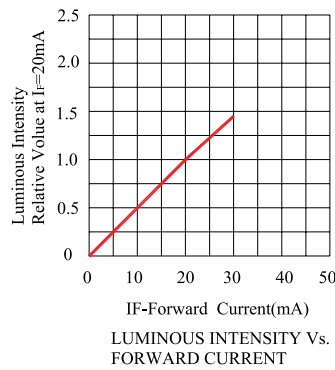
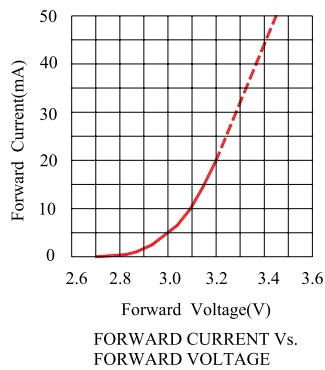
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



Round LED

3mm, Red/Blue

Blue



Part Number Table

Description	Part Number
Round LED, Red/Blue, 630nm/465nm, 370mcd/480mcd, Through hole	MP008535

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