

Kitronik Ltd – 5mm RGB LED Common Cathode

TECHNOLOGY DATA SHEET & SPECIFICATIONS



Device Selection Guide

Chip		Lens Colour
Material	Emitted Color	
AlGaInP	Red	Water clear
InGaN	Green	
InGa1N	Blue	

Features

- Uniform light output.
- Low power consumption.
- I.C. compatible.
- Long life solderability.
- **Common Cathode.**

Descriptions

- The Red source colour devices are made with AlGaInP on GaAs substrate.
- The Green source colour devices are made with InGaN on sic.
- The Blue source colour devices are made with InGaA1N on sic.

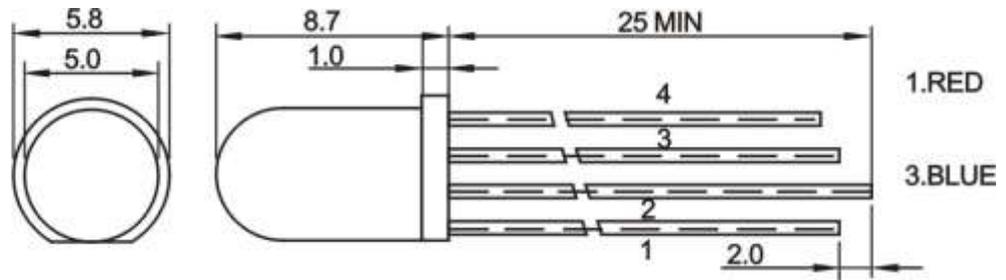
Usage Notes:

- The ultra bright LED is an electrostatic sensitive device, so static electricity and surge will damage the LED.
- It is required to wear a wrist-band when handling the LED. All device, equipment, machinery, desk and ground must be properly grounded.
- When using LED, it must use a protective resistor in series with DC current about 20mA.

Applications

- Status indicators.
- Commercial use.
- Advertising signs.
- Back lighting.

Package Dimensions



UNIT:mm

1. RED
2. COMMON CATHODE
3. BLUE
4. GREEN

Notes:

- Other dimensions are in millimetres, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.

Absolute Maximum Rating (Ta=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	IFPM	70	mA
Forward Current	IFM	30	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	140	mW
Operating Temperature	Topr	-40~+80	°C
Storage Temperature	Tstg	-40~+100	°C
Soldering Temperature	Tsol	Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	°C

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Red Green Blue	1000 1200 1000	1500 2000 1500	2300 2700 2200	mcd	IF=20mA
Viewing Angle	2θ1/2	Red Green Blue	40	---	50	Deg	
Peak Emission Wavelength	λp	Red Green Blue	635 520 460	640 525 465	650 530 470	nm	IF=20mA
Spectral Line Half-Width	Δλ	Red Green Blue	15 15 25	20 20 30	25 25 35	nm	IF=20mA
Forward Voltage	VF	Red Green Blue	1.9 2.9 2.9	---	2.5 3.5 3.5	V	IF=20mA
Reverse Current	IR	Red Green Blue	---	---	10	μA	VR=5V