

BL0104-21-72

### Features

- HIGH VISIBILITY.
- NO. OF BUILT-IN 3mm LED LAMPS: SUPER BRIGHT RED 4 PCS, SUPER BRIGHT GREEN 8 PCS AND BLUE 9 PCS.
- WATERPROOF PACKAGE WITH HOOD SUITABLE FOR OUTDOOR AND INDOOR INFORMATION BOARDS.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.

### Description

The Blue source color devices are made with GaN on SiC Light Emitting Diode.

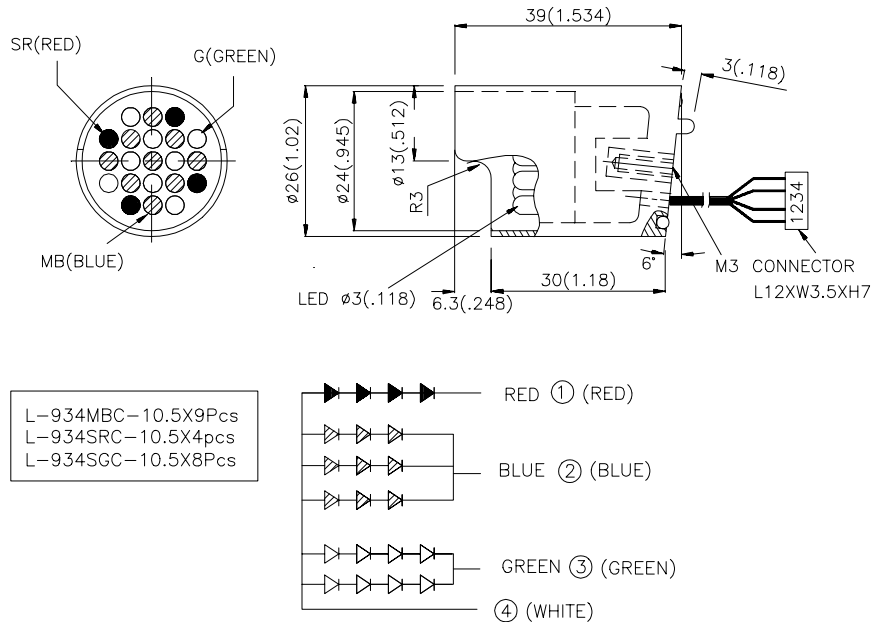
Static electricity and surge damage the LEDs. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

The Super Bright Green color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

Part No.	Emitting Color +Material	$\lambda D$ (nm)	Lens Type	Iv (mcd) @20mA		Viewing Angle	IF (mA)
				Min.	Typ.		
BL0104-21-72	GaAlAs	640	WATER CLEAR	800	1800	40°	20
	GaN	455	WATER CLEAR	180	300	40°	60
	GaP	568	WATER CLEAR	560	1200	40°	40

Note:

1.  $\theta 1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Symbol	Parameter	Device	Color	Min.	Typ.	Max.	Units	Test Conditions
Iv	Luminous Intensity	BL0104-21-72	Blue Super Bright Red Super BrightGreen	180 800 560	300 1800 1200	-	mcd	IF=60mA IF=20mA IF=40mA
$\theta$	Viewing Angle		Blue Super Bright Red Super BrightGreen	-	40	-	Deg	-
$V_F$	Forward Voltage		Blue Super Bright Red Super BrightGreen	-	11.4 7.4 8.8	13.5 10 10	V	IF=60mA IF=20mA IF=40mA
$\lambda_{peak}$	Peak Wavelength		Blue Super Bright Red Super BrightGreen	-	430 660 565	-	nm	IF=60mA IF=20mA IF=40mA
$\lambda D$	Dominate Wavelength		Blue Super Bright Red Super BrightGreen	-	455 640 568	-	nm	IF=60mA IF=20mA IF=40mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth		Blue Super Bright Red Super BrightGreen	-	60 20 30	-	nm	IF=60mA IF=20mA IF=40mA
$I_R$	Reverse Current		Blue Super Bright Red Super BrightGreen	-	30 10 20	-	uA	VR = 5V

## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Parameter	Blue	Super Bright Red	Super Bright Green	Units
Power dissipation	1000	220	440	mW
DC Forward Current	90	30	50	mA
Reverse Voltage	5	5	5	V
Operating Temperature	-40° C To +70° C			
Storage Temperature	-40° C To +85° C			