

## 3mm LEDs

Order code	Manufacturer code	Description
55-1460	L-7104MBD	L-7104MBD LED 3MM BLUE DIFFUSED 40MCD RC
55-1465	L-7104MBT	L-7104MBT LED 3MM BLUE TRANSP 60MCD RC

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The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

# Kingbright®

## T-1 (3mm) BLUE LED

L-934MBD GaN  
L-934MBT GaN  
L-934MBC GaN

### Features

- LOW POWER CONSUMPTION.
- SOLID STATE BLUE LIGHT SOURCE.
- SUITABLE FOR FULL COLOR LED DISPLAYS AND INDICATORS DIAGNOSTIC/ANALYTICAL EQUIPMENT.

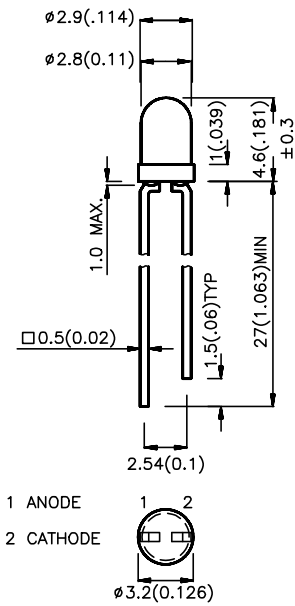
### Description

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 handing the LEDs.

All devices, equipment and machinery must be electrically grounded.

### 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 subjected to change without notice.

### Selection Guide

Part No.	Dice	Case-Color	Iv (mcd) @ 20 mA		Viewing Angle <b>2<math>\theta</math>1/2</b>
			Min.	Max.	
L-934MBD	Blue (GaN)	BLUE DIFFUSED	12.5	40	60°
L-934MBT	Blue (GaN)	BLUE TRANSPARENT	20	60	20°
L-934MBC	Blue (GaN)	WATER CLEAR	20	90	20°

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

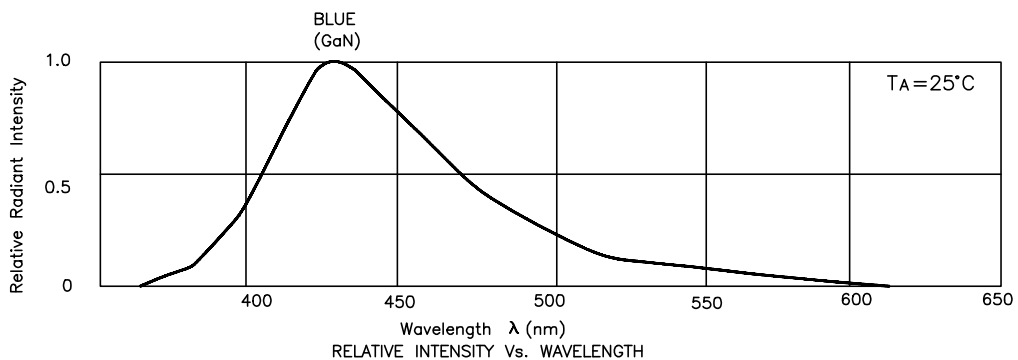
### Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{\text{peak}}$	Peak Wavelength	Blue (GaN)	430		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth		65		nm	IF=20mA
C	Capacitance		100		pF	VF=0V;f=1MHz
V <sub>F</sub>	Forward Voltage		4.5	5.5	V	IF=20mA
I <sub>R</sub>	Reverse Current		10		uA	VR = 5V

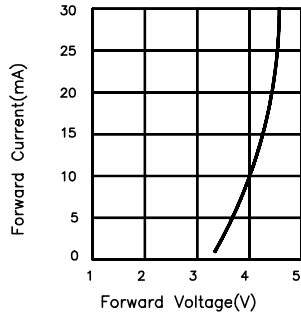
### Absolute Maximum Ratings at T<sub>A</sub>=25°C

Parameter	Blue	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	200	mA
Reverse Voltage	5	V
Operation/Storage Temperature	-40 °C To +85 °C	
Lead Solder Temperature [2]	260 °C For 5 Seconds	

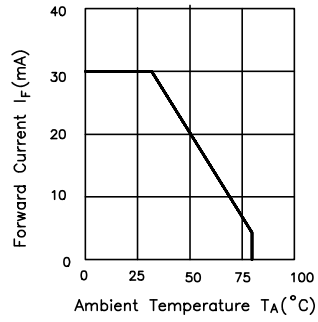
Notes:  
 1. 1/10 Duty Cycle, 0.1ms Pulse Width.  
 2. 4mm below package base.



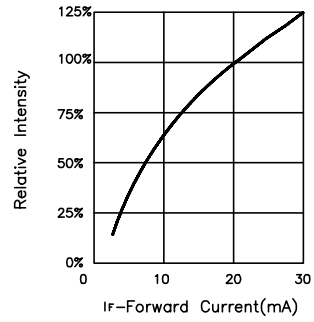
Blue L-934MBD,L-934MBT,L-934MBC



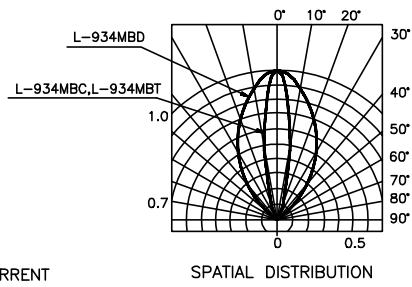
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



RELATIVE INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION