Kingbright®

T-1 3/4 (5mm) BLUE LED

L-53MBD GaN
L-53MBT GaN
L-53MBC GaN

Features

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

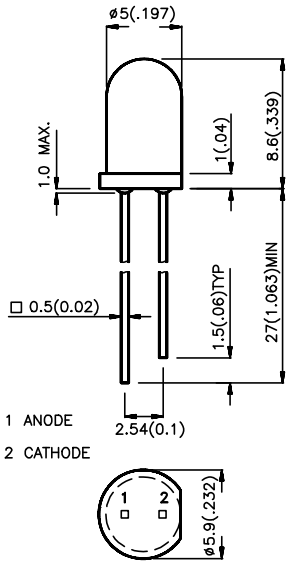
Description

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 ±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
			Min.	Max.	**2q1/2**
L-53MBD	Blue (GaN)	BLUE DIFFUSED	20	60	60°
L-53MBT	Blue (GaN)	BLUE TRANSPARENT	20	100	16°
L-53MBC	Blue (GaN)	WATER CLEAR	40	150	16°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

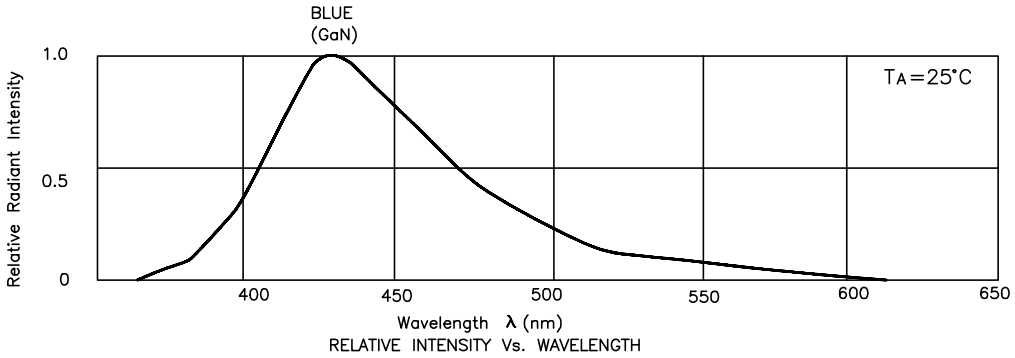
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{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_F	Forward Voltage		4.5	5.5	V	IF=20mA
I_R	Reverse Current		10		uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

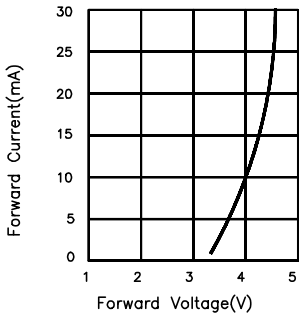
Parameter	Blue	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	200	mA
Reverse Voltage	5	V
Operation/Storage Temperature	-40 °C To +85 °C	
Lead Solder Temperature [2]	260 °C For 5 Seconds	

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

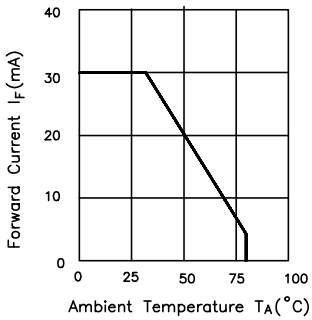


RELATIVE INTENSITY Vs. WAVELENGTH

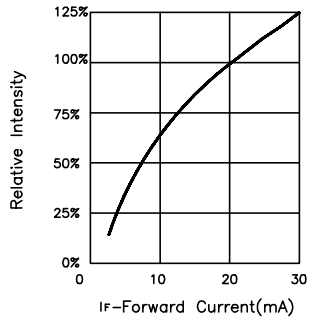
Blue L-53MBD,L-53MBT,L-53MBC



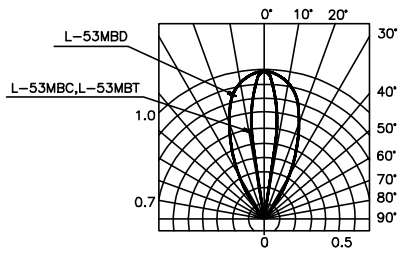
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



RELATIVE INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION