Kingbright

T-1 3/4 (5mm) SOLID STATE LAMP

L-53MBCK

Features

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

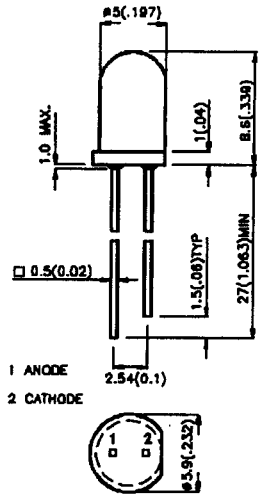
Description

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 handling 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.	Typ.	2θ1/2
L-53MBCK	Blue (GaN)	WATER CLEAR	55	110	16°

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

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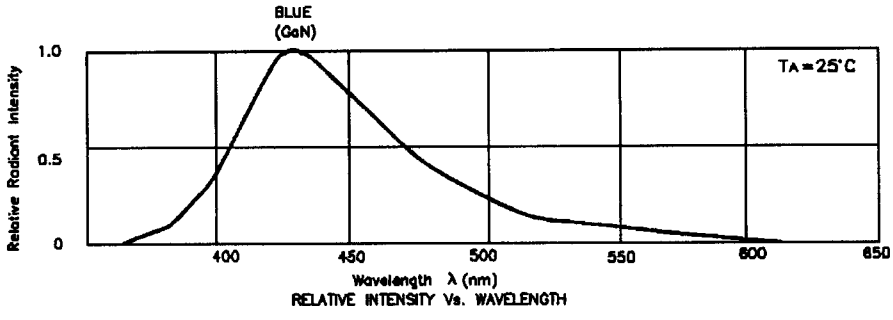
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	430		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	Blue	65		nm	IF=20mA
C	Capacitance	Blue	100		pF	VF=0V;f=1MHz
V_F	Forward Voltage	Blue	3.8	4.5	V	IF=20mA
I_R	Reverse Current	All		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 Soldering 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

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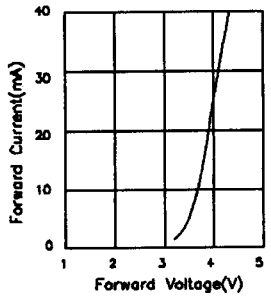
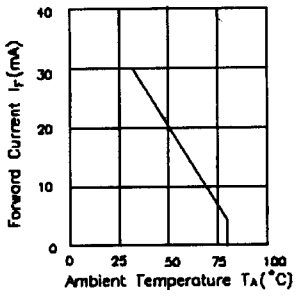
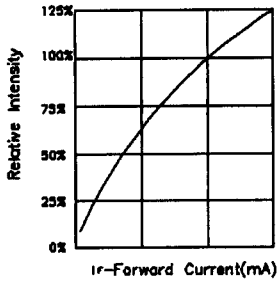
Blue L-53MBCK



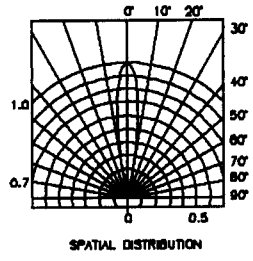
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



RELATIVE INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION