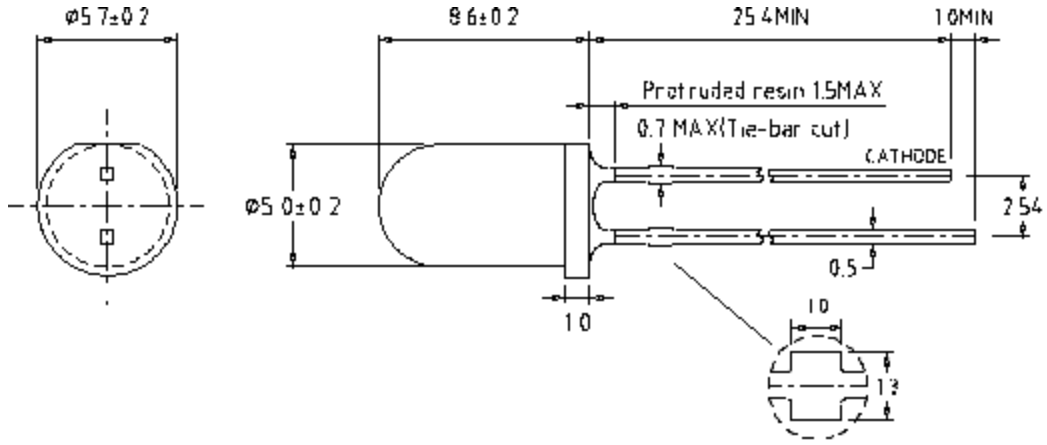
High Output Violet LED Lamp

5mm Through-Hole Package

BL–LBVT5N18C series

FEATURES	APPLICATIONS
• High Output Violet 420nm λp LED. • InGaN on Sapphire (Al_2O_3) die. • 5mm round shaped resin mold. • Water Clear Lens. • Ideal viewing angle for most applications.	• Epoxy Curing • Currency validation / detection • Bacteria detection. • Medical and forensics. • Decorative /Accent Lighting

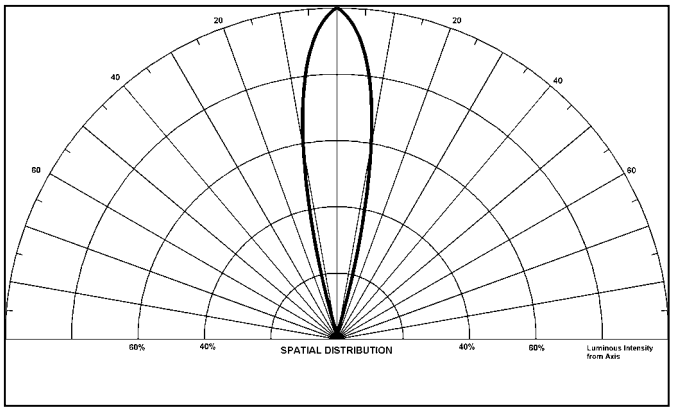
PACKAGE OUTLINE DIMENSIONS:



NOTES: Lead Stoppers Optional

1. All dimensions are in millimeters.
2. Tolerance is ±0.25 mm unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

BEAM RADIATION PATTERN



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ABSOLUTE MAXIMUN RATING (at T_A = 25°C)

Parameter	Symbol	Value	Unit
Continuous Forward Current	I_F	30	mA
Peak Forward Current (1/10 Duty Cycle, 0.1msec Pulse width)	I_{Fp}	100	mA
Power Dissipation	P_d	120	mW
Forward Voltage	V_f	3.9	V
Reverse Voltage	V_R	5.0	V
Operating Temperature	T_{opr}	-40 to +85	°C
Storage Temperature	T_{stg}	-45 to +100	°C
Lead Soldering Temperature (1.6mm (0.063") from body)	**260°C for 5 seconds**		

ELECTRICAL / OPTICAL CHARACTERISTICS (at T_A = 25°C)

Parameter		Symbol	Min	Typ	Max	Unit
Forward Voltage	I_F= 20 mA	V_F		3.2	3.9	V
Radiant Intensity	I_F= 20 mA	I_r		65		mW/sr
Peak Wavelength	I_F= 20 mA	λ_p	410	420	425	nm
Spectrum Radiation Bandwidth	I_F= 20 mA	$\Delta\lambda$		22		nm
Viewing Angle		2θ 1/2	15	18	21	deg
Reverse Current	V_R= 5 V	I_R		10	100	μA

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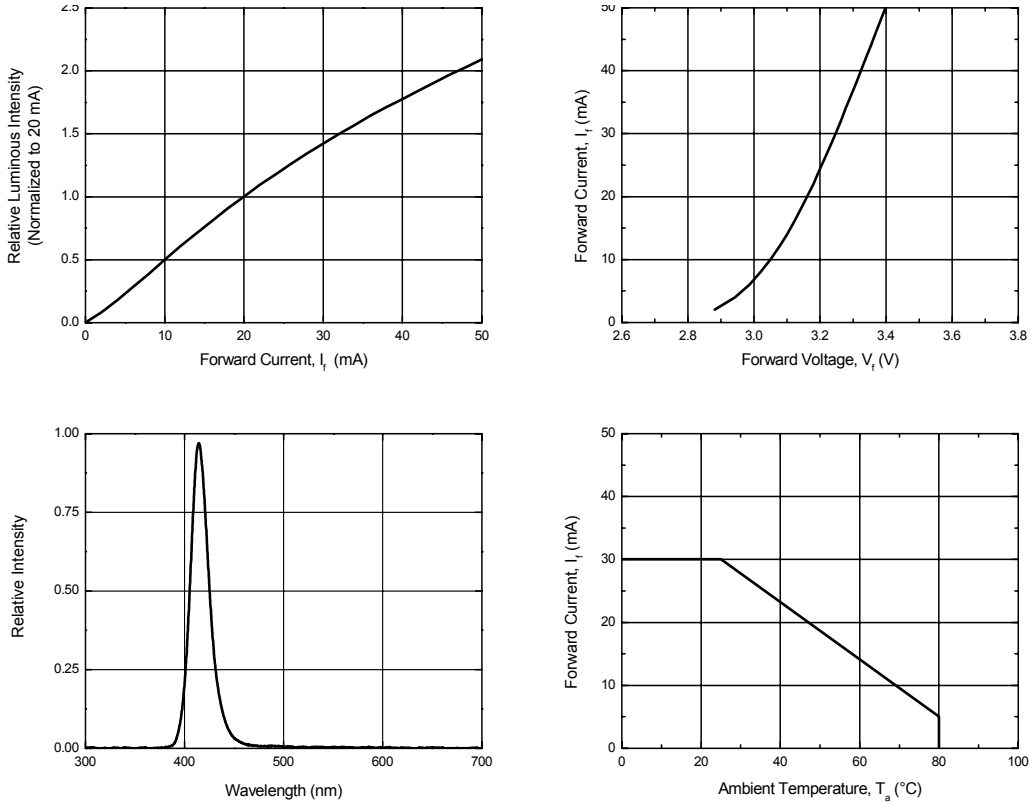
TYPICAL ELECTRICAL CHARACTERISTICS CURVES (at 20 mA DC / T_A = 25°C)



GENERAL NOTES:

1. Radiant Intensity (I), a radiometric measurement, is obtained by measuring the LED lamp with a Spectral Goniometric Analyzer. It is the Light Energy (mW) emitted by the LED lamp in the forward axial direction (within a 3° solid angle (sr)).
2. Radiant Intensity measurement uncertainty is +/- 15% due to test procedures and equipment variations.
3. θ1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance +/- 3°.
4. Dominant wavelength is derived from the 1931 CIE 2° Observer Chromaticity Diagram.
5. Peak and Dominant wavelength measurement uncertainty is +/- 0.05 due to variations.
6. Caution for ESD: Static Electricity and surges can damage the LED. It is recommended using a wristband or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
7. Do not apply excess mechanical stress to the leads, especially when heated or while soldering.

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PRODUCT CODE BREAKDOWN

X_1X_2 - X_3 X_4 X_5X_6 X_7 X_8 X_9X_{10} X_{11} -X_{12} X_{13}

Manufacturer
BL= Brite-LED
PL=PowerLED
SG=SinoGerman

Package Type
L= Lamp TH

Product Series

Emitted Color
VT= Violet 420 λp

Lens Size
5= 5mm

Lens Shape
N= Normal

Viewing Angle
18= 18° ± 3°

Lens Resin
C= Clear

Lead Stoppers
N=No Stoppers
S= with Stoppers

Delivery
B= Bulk
R= Reel
A= Ammo