

High Output Violet LED Lamp

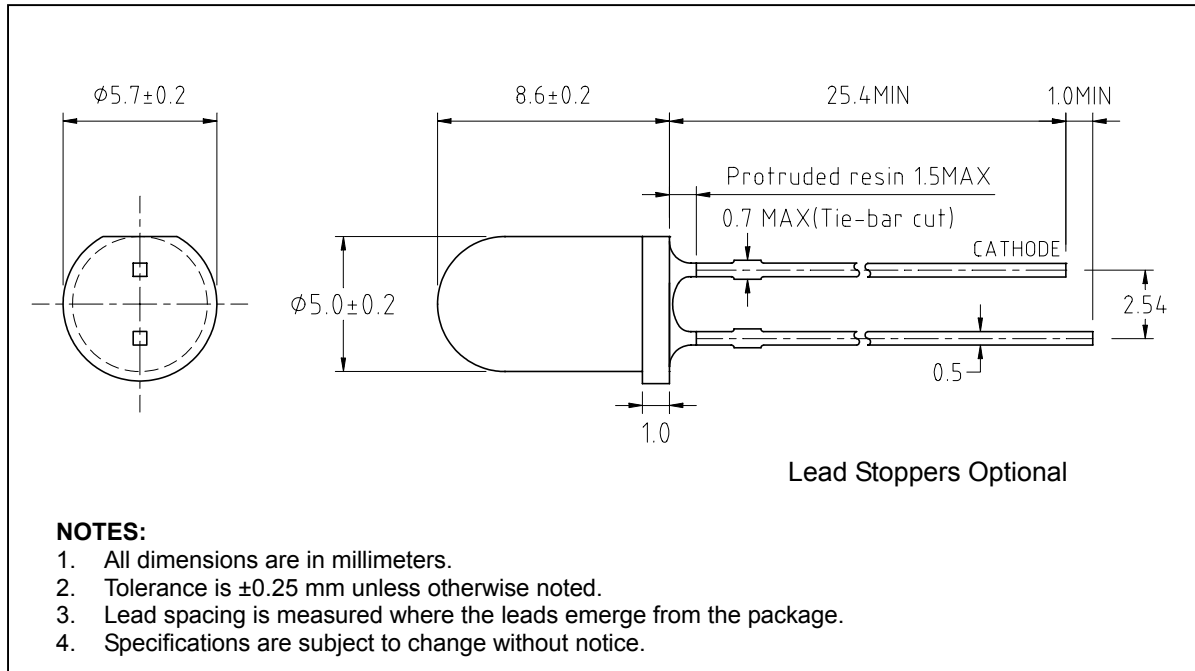


5mm Round Through-Hole Package

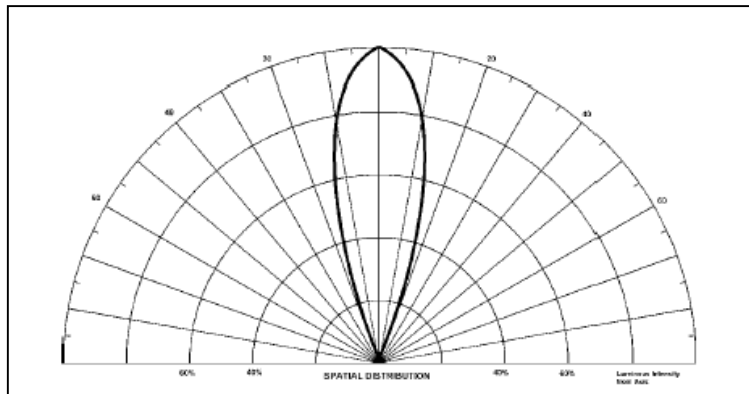
BL-LBVT5N30C series

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> • High output Violet 420nm LED • InGaN on Sapphire die. • 5mm round resin mold. • Water Clear Lens. • Wide viewing angles (30°). 	<ul style="list-style-type: none"> • Decorative /Accent Lighting • Miniature Flashlights • Key rings and novelties • Back or Side lighting. • Medical and adhesive curing.

PACKAGE OUTLINE DIMENSIONS:



BEAM RADIATION PATTERN



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ABSOLUTE MAXIMUM RATING (at $T_A = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Continuous Forward Current	I_F	30	mA
Peak Forward Current (1/16 Duty Cycle, 0.1msec Pulse width)	I_{Fp}	150	mA
Power Dissipation	P_d	120	mW
Forward Voltage	V_f	3.9	V
Derating Factor	D_F	0.4	mA / $^\circ\text{C}$
Reverse Voltage	V_R	5.0	V
Operating Temperature	T_{opr}	-25 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-35 to +100	$^\circ\text{C}$
Lead Soldering Temperature (1.6mm (0.063") from body)	260 $^\circ\text{C}$ for 5 seconds		

ELECTRICAL / OPTICAL CHARACTERISTICS (at $T_A = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typ	Max	Unit
Forward Voltage	$I_F = 20\text{ mA}$ V_F		3.2	3.9	V
Peak Wavelength	$I_F = 20\text{ mA}$ λ_p	415	420	425	nm
Dominant Wavelength	$I_F = 20\text{ mA}$ λ_d		434		nm
Spectrum Radiation Bandwidth	$I_F = 20\text{ mA}$ $\Delta\lambda$		21		nm
Reverse Current	$V_R = 5\text{ V}$ I_R			100	μA
Viewing Angle	$2\theta_{1/2}$		30		deg
Radiant Intensity	$I_F = 20\text{ mA}$ I	12	22		mW/sr

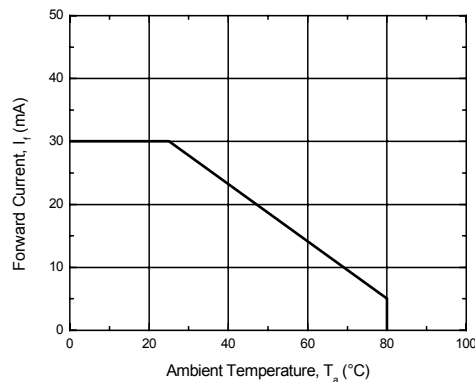
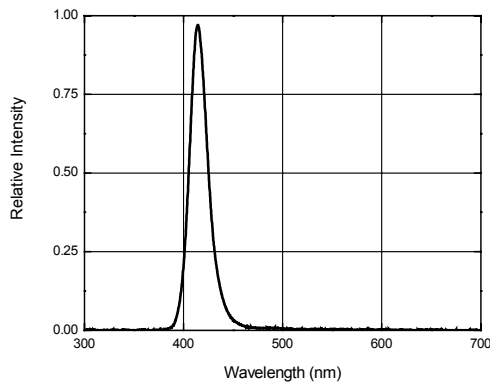
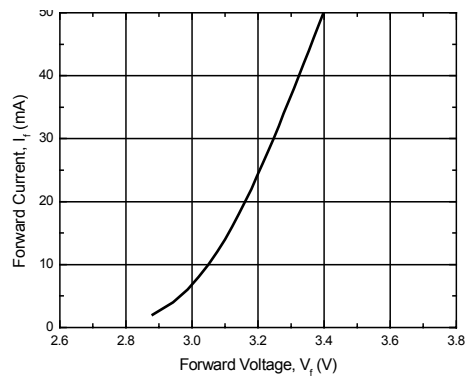
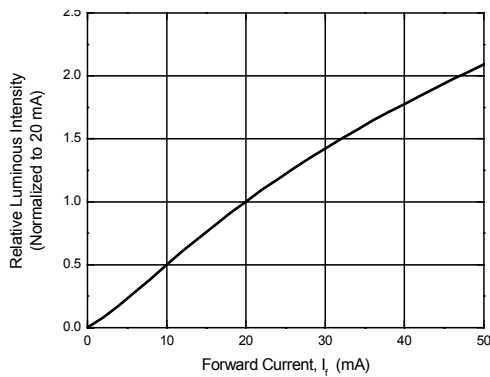
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TYPICAL ELECTRICAL CHARACTERISTICS CURVES (at 20 mA DC / $T_A = 25^\circ\text{C}$)



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 $\pm 15\%$ due to test procedures and equipment variations.
3. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance $\pm 3^\circ$.
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

