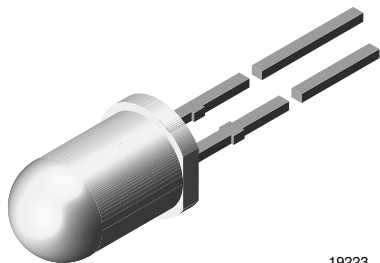




High Efficiency Blue LED, Ø 5 mm Untinted Non-Diffused Package



19223

DESCRIPTION

This device has been designed in GaN on SiC technology to meet the increasing demand for high efficiency blue LEDs.

It is housed in a 5 mm waterclear plastic package.

All packing units are categorized in luminous intensity groups. That allows users to assemble LEDs with uniform appearance.

PRODUCT GROUP AND PACKAGE DATA

- Product group: LED
- Package: 5 mm
- Product series: standard
- Angle of half intensity: $\pm 9^\circ$

FEATRUERS

- GaN on SiC technology
- Standard Ø 5 mm T-1 $\frac{3}{4}$ package
- Small mechanical tolerances
- Small viewing angle
- Very high intensity
- Luminous intensity categorized
- ESD class 1
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- Status lights
- Off / on indicator
- Background illumination
- Readout lights
- Maintenance lights
- Legend light

PARTS TABLE

**OPTICAL AND ELECTRICAL CHARACTERISTICS** ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)
TLHB5100, TLHB5102, BLUE

PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Luminous intensity ⁽¹⁾	$I_F = 20\text{ mA}$	TLHB5100	I_V	63	250	-	mcd
		TLHB5102	I_V	130	-	360	mcd
Dominant wavelength	$I_F = 10\text{ mA}$		λ_d	-	466	-	nm
Peak wavelength	$I_F = 10\text{ mA}$		λ_p	-	428	-	nm
Angle of half intensity	$I_F = 10\text{ mA}$		ϕ	-	± 9	-	$^{\circ}$
Forward voltage	$I_F = 20\text{ mA}$		V_F	-	3.9	4.5	V
Reverse voltage	$I_R = 10\text{ }\mu\text{A}$		V_R	5	-	-	V

Note

(1) In one packing unit $I_{Vmin.}/I_{Vmax.} \leq 0.5$

LUMINOUS INTENSITY CLASSIFICATION

GROUP STANDARD	LUMINOUS INTENSITY (mcd)	
	MIN.	MAX.
V	63	125
W	100	200
X	130	260
Y	180	360
Z	240	480
AA	320	640
BB	43	

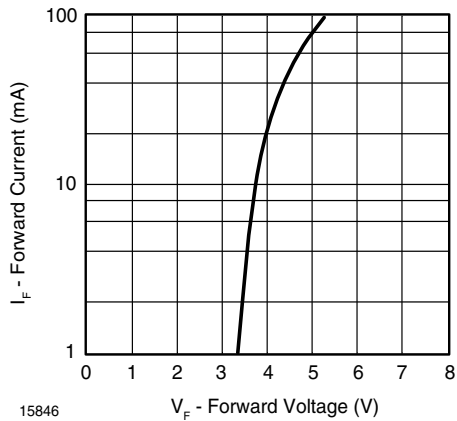


Fig. 3 - Forward Current vs. Forward Voltage

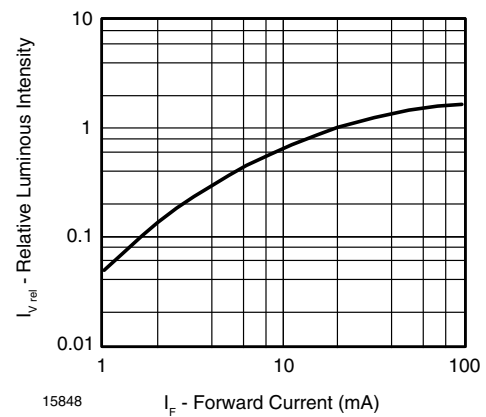


Fig. 5 - Relative Luminous Flux vs. Forward Current

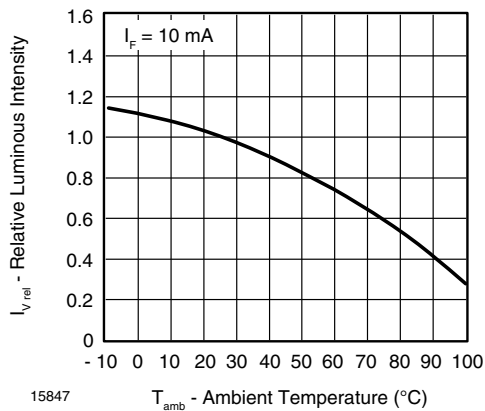


Fig. 4 - Rel. Luminous Flux vs. Ambient Temperature

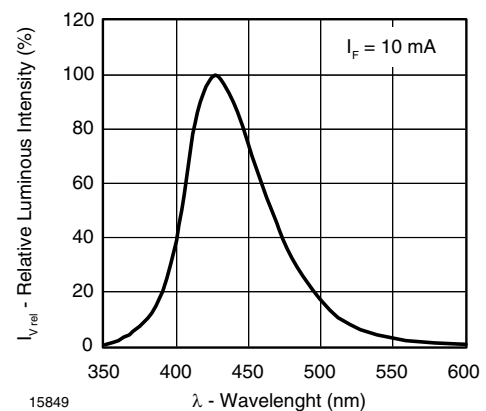
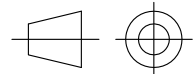
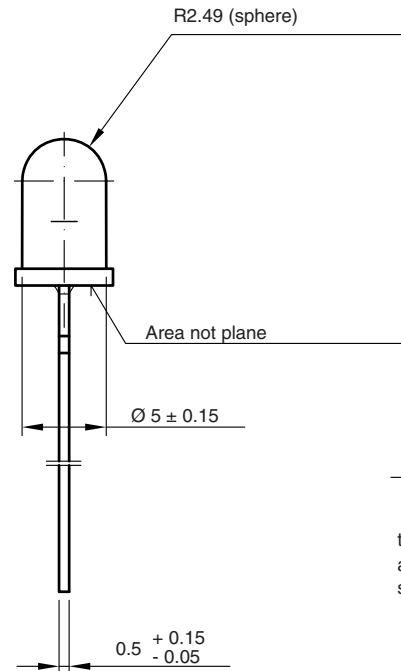
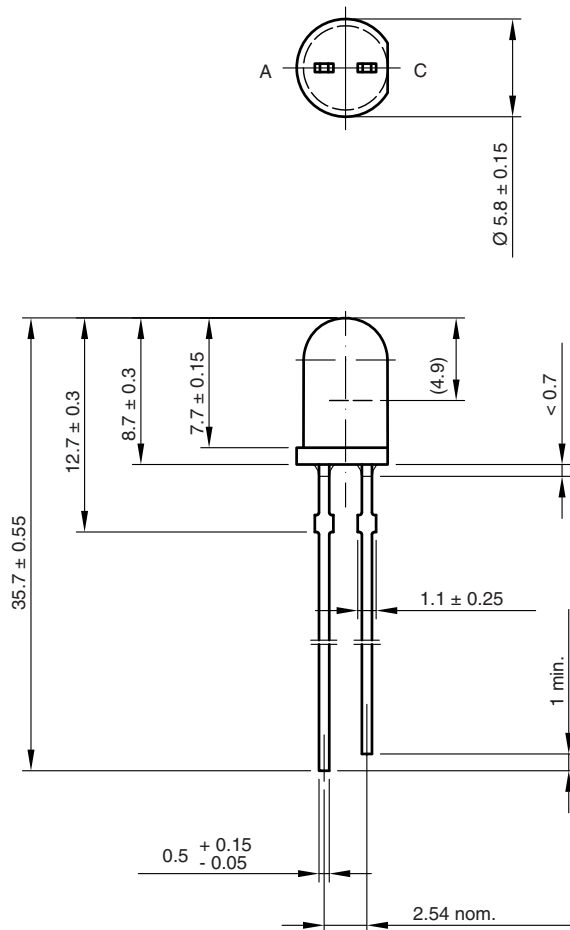


Fig. 6 - Relative Intensity vs. Wavelength

**PACKAGE DIMENSIONS** in millimeters

technical drawings
according to DIN
specifications

6.544-5258.09-4
Issue: 4; 19.05.09
15909



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