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# **ETG-5BK420-15**

## **DATA SHEET**

QC:

ENG:

Prepared By:



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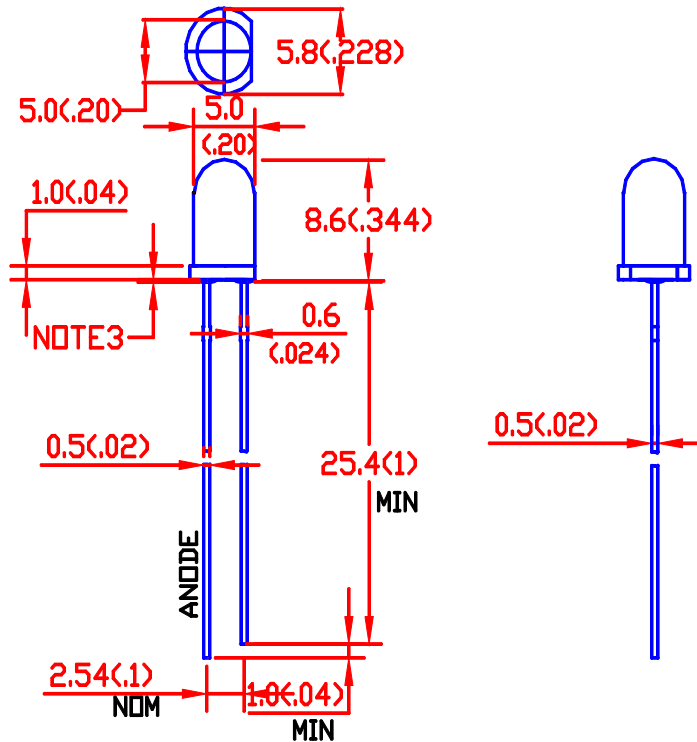
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**Features:**

- ◆ High intensity
- ◆ Standard T-1 3/4 diameter package
- ◆ General purpose leads
- ◆ Reliable and rugged

**Package Dimensions:**



Part NO.	Chip Material	Lens Color	Source Color
ETG-5BK420-15	InGaN	Water Clear	Purple

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  mm (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm(.04") max
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. This data-sheet only valid for six months.

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Parameter	MAX.	Unit
Power Dissipation	120	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +80°C	
Storage Temperature Range	-40°C to +100°C	
Lead Soldering Temperature [4mm(.157") From Body]	260°C for 5 Seconds	

**Electrical Optical Characteristics at Ta=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>		650		mcd	I <sub>f</sub> =20mA (Note 1)
Viewing Angle	2θ <sub>1/2</sub>		15		Deg	(Note 2)
x,y coordinates (CIE 1931 2° )	x		0.169		---	I <sub>f</sub> =20mA (Note 3)
	y		0.028		---	I <sub>f</sub> =20mA (Note 3)
Forward Voltage	V <sub>f</sub>		3.5	4.5	V	I <sub>f</sub> =20mA
Reverse Current	I <sub>R</sub>	---	---	100	μA	V <sub>R</sub> =5V

**Notes:**

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ<sub>d</sub>) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

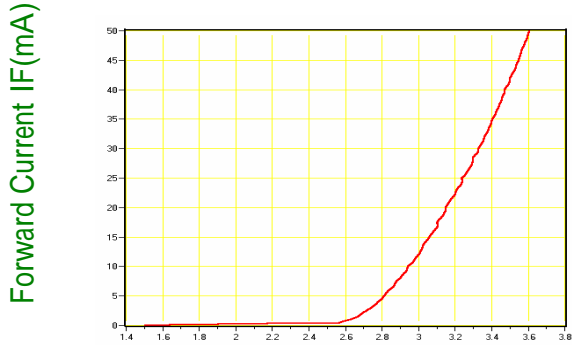


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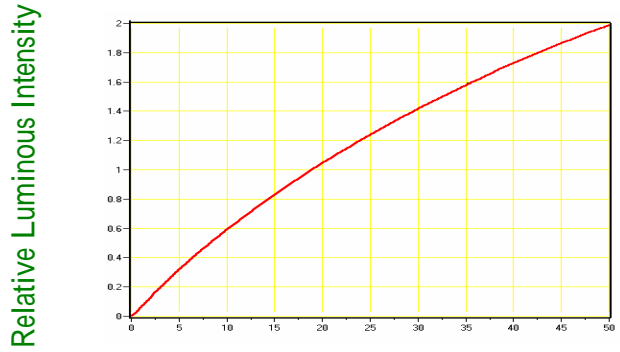
### Typical Characteristics

The data typical, and the value is not guaranteed.

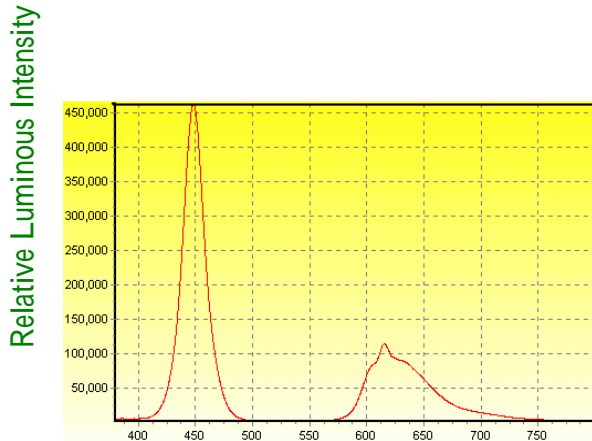
IF-VF(Ta=25 )



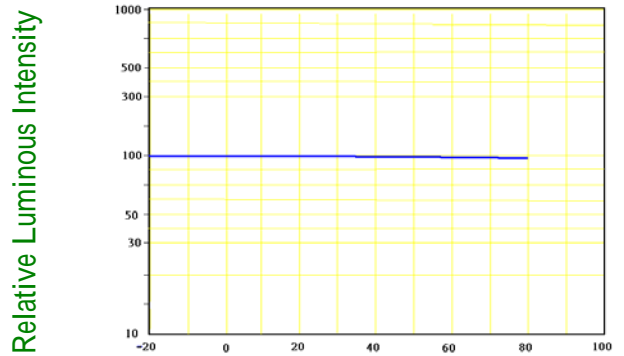
Relative Luminous Intensity-IF (Ta=25 )



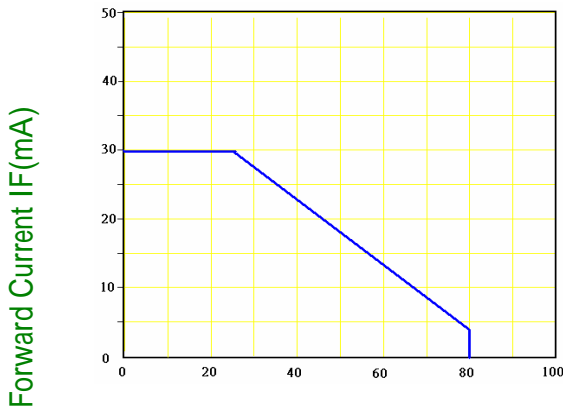
Wavelength Characteristics  
(Ta=25 )



Relative Luminous Intensity-Ta



IF-Ta



Directive Characteristics  
( Ta=25 )

