



**ETG Inc.**

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# **ETG-PXRGB-180**

## **DATA SHEET**

QC:

ENG:

Prepared By:



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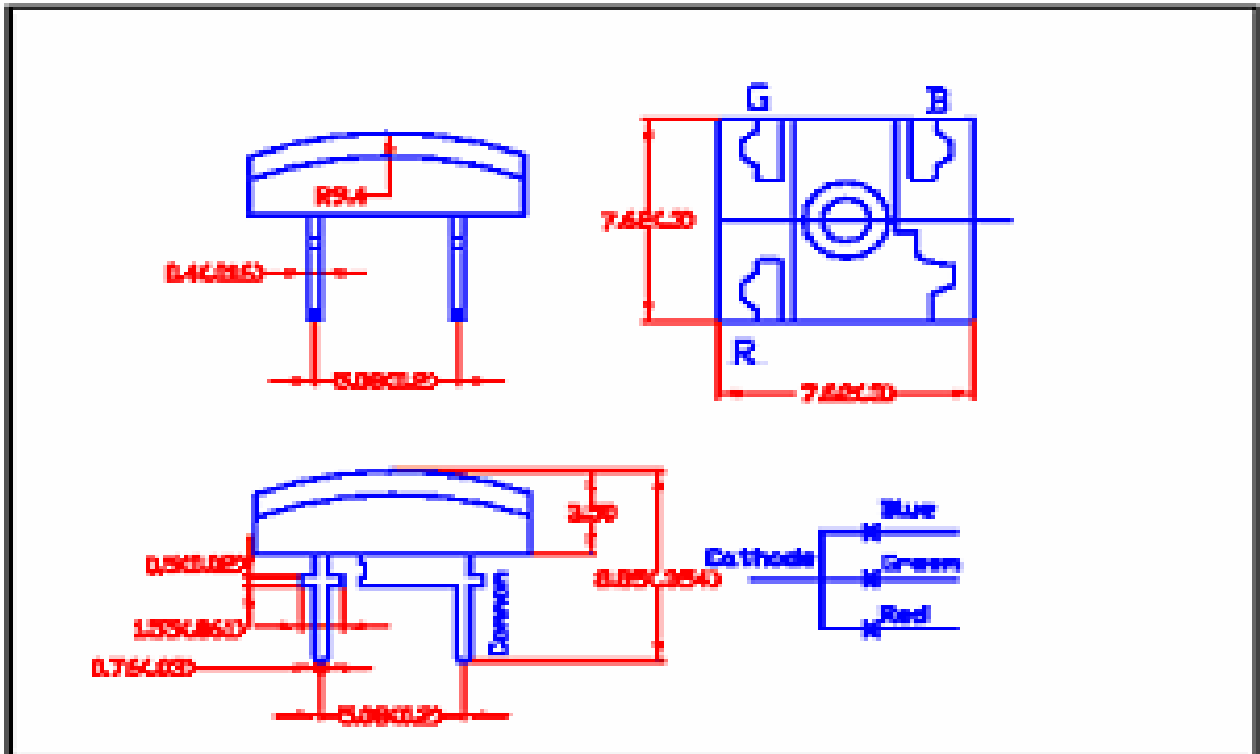
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## Package Dimension:



Part NO.	Chip Material	Lens Color	Source Color
ETG-PXRGB-180	Blue: InGaN/SiC Green: InGaN/SiC Red: AlInGaP	Water Clear	RGB

### 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	Symbol	Value			Unit
		R	G	B	
Power dissipation	Pd	120	120	120	mW
Forward current	If	50			mA
Reverse voltage	Vr	5			V
Operating temperature range	Top	-20 ~+80			
Storage temperature range	Tstg	-20 ~+80			
Peak pulsing current (1/8 duty f=1kHz)	Ifp	100			mA

### Electro-optical characteristics

(T<sub>A</sub>=25 )

Parameter	Test Condition	Symbol	Value			Unit
			R	G	B	
Wavelength at peak emission (Typ.)	If=30mA	$\lambda_{peak}$	630	525	470	nm
Spectral half bandwidth (Typ.)	If=30mA	$\lambda$	20	25	25	nm
Dominant wavelength (Typ.)	If=30mA	$\lambda_{dom}$	620	528	465	nm
Viewing angle at 50% I <sub>v</sub> (Typ.)	If=10mA	2 $\theta_{1/2}$	140			Deg
Reverse current (Max.)	Vr=5V	I <sub>r</sub>	10			$\mu$ A
Forward voltage (Typ.)	If=30mA	V <sub>f</sub>	1.80	3.20	3.20	V
Forward voltage (Max.)			2.40	4.00	4.00	
Luminous intensity (FLUX) (Typ.)	If=30mA	I <sub>v</sub>	0.8	1.85	0.45	lm

#### Notes:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity
3. The dominant wavelength ( $\lambda_d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.



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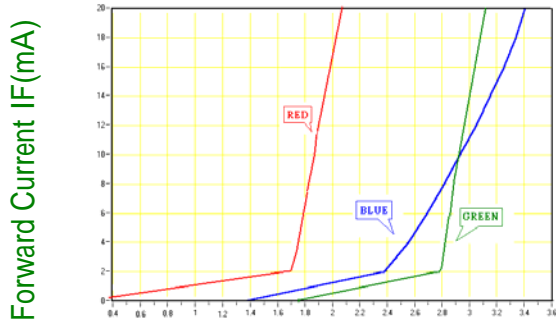
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**Typical Characteristics**

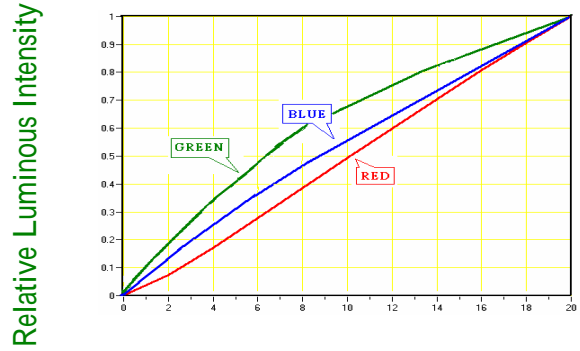
The data typical, and the value is not guaranteed.

IF-VF(Ta=25)



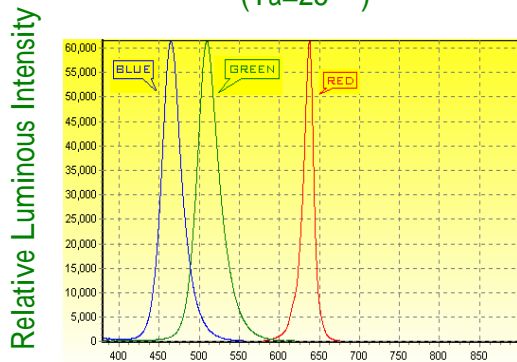
Relative Luminous Intensity-IF

(Ta=25 )

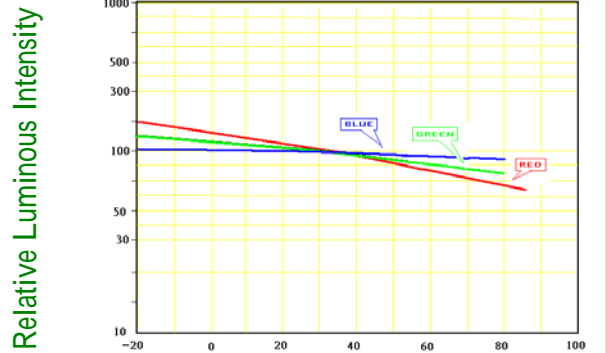


Wavelength Characteristics

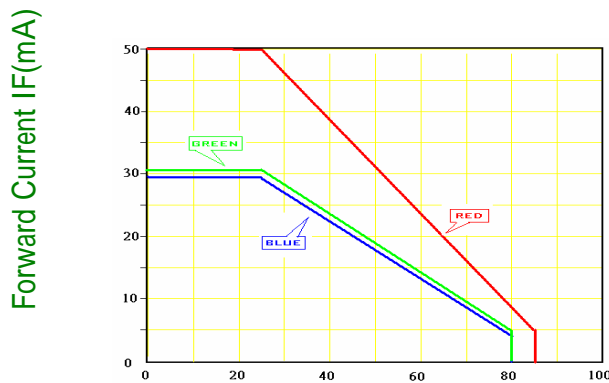
(Ta=25 )



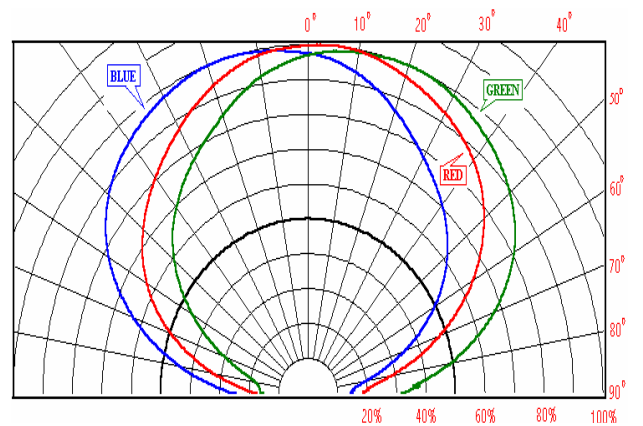
Relative Luminous Intensity-Ta



IF-Ta



Directive Characteristics ( Ta=25 )



Ambient Temperature Ta ( )