

L505/630-02

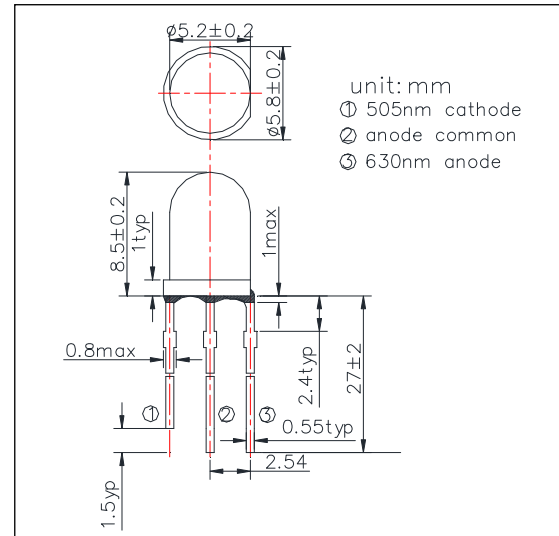
Bi-Color LED

PRELIMINARY

<Specifications>

- Chip Material: InGaN / AlInGaP
- Chip Dimension: 350x300/350x350(um)
- Number of Chips: 2pcs
- Peak Wavelength: 505nm typ./630nm typ.
- Package Type: $\Phi 5$ mm Clear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: Epoxy Resin

Outer Dimension (Unit:mm)

**Absolute Maximum Ratings**[Tc=25°C]

Item	Symbol	Maximum Rated Value		Unit
		505nm	630nm	
Power Dissipation	PD	190	110	mW
Forward Current	IF	50		mA
Pulse Forward Current*	IFP	100		mA
Reverse Voltage	VR	5		V
Thermal Resistance	Rthja	300		K/W
Junction Temperature	Tj	120		°C
Operating Temperature	TOPR	-40 ~ +100		°C
Storage Temperature	TSTG	-40 ~ +100		°C
Soldering Temperature**	TSOL	265		°C

*Duty 1% and Pulse Width=10us

**Soldering condition must be completed within 3 seconds at 265°C

Electro-Optical Characteristics [Tc=25°C]

Item	Symbol	Condition	Min		Typ		Max		Unit
			505	630	505	630	505	630	
Forward Voltage	VF	IF=20mA			3.3	2.0	3.8	2.2	V
	VFP	IFP=100mA			4.7	2.4			
Total Radiated Power*	PO	IF=20mA			10	10			mW
		IFP=100mA			27	47			
Luminous Flux	ΦV	IF=20mA			3600	2100			lm
Peak Wavelength	λP	IF=20mA	495	620			515	640	nm
Dominant Wavelength	λD	IF=20mA			508	620			nm
Half Width	$\Delta \lambda$	IF=20mA			30	16			nm
Rise Time	tr	IF=20mA			25	70			ns
Fall Time	tf	IF=20mA			70	50			ns

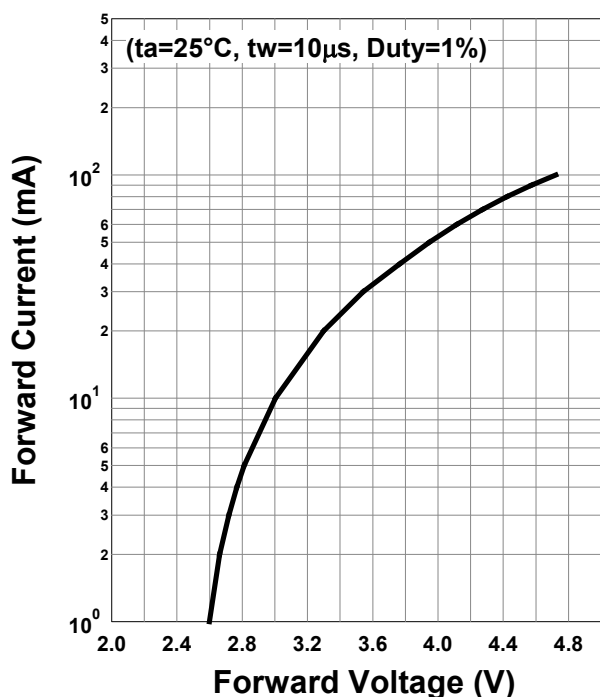
*Measured by S3584-08



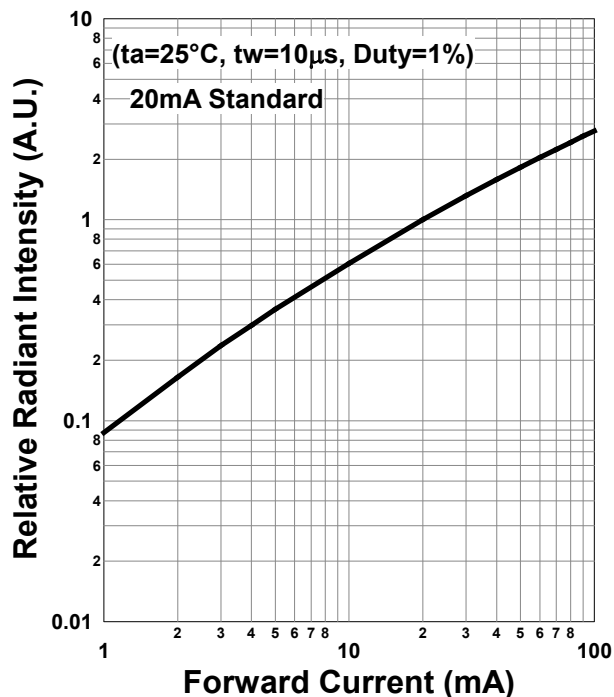
Typical Characteristic Curves

505nm

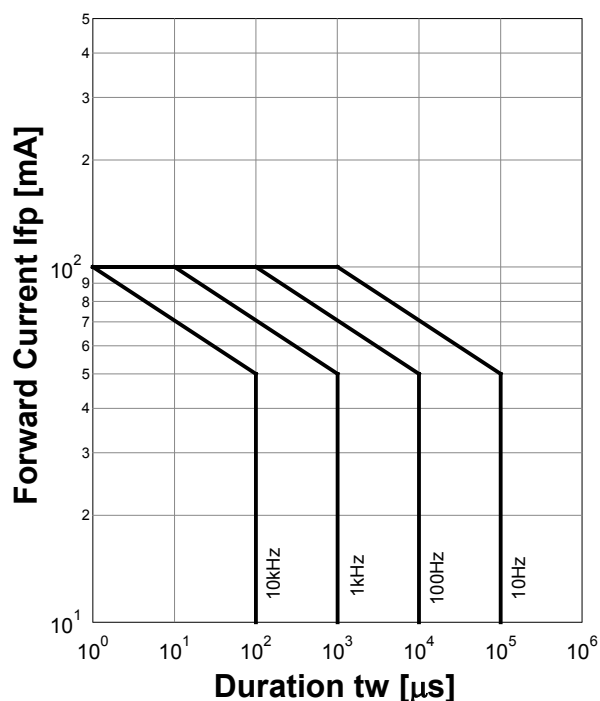
Forward Current - Forward Voltage



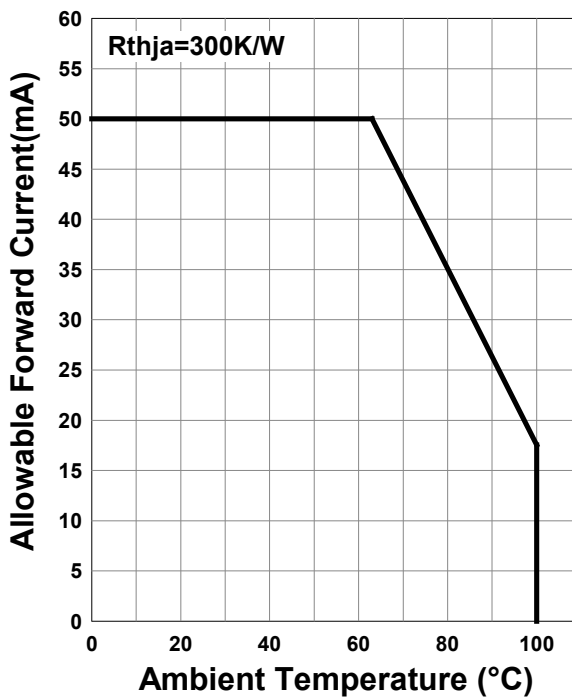
Relative Radiant Intensity - Forward Current



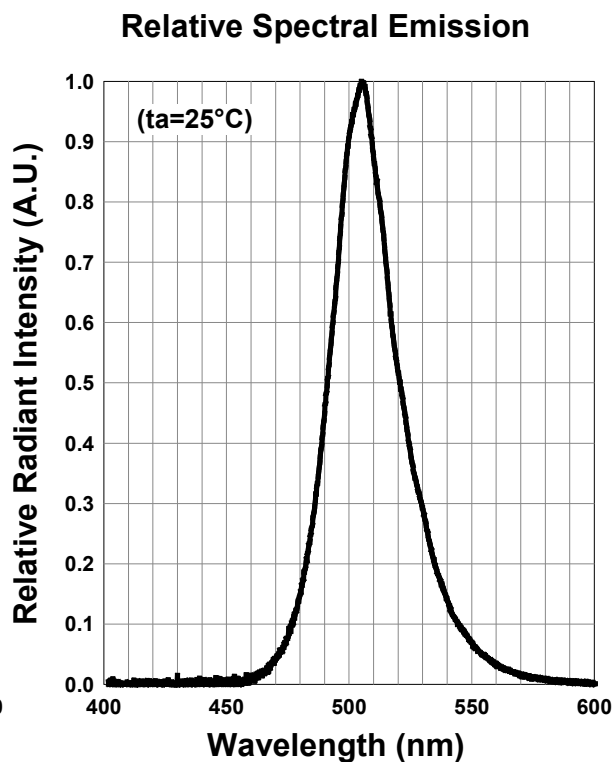
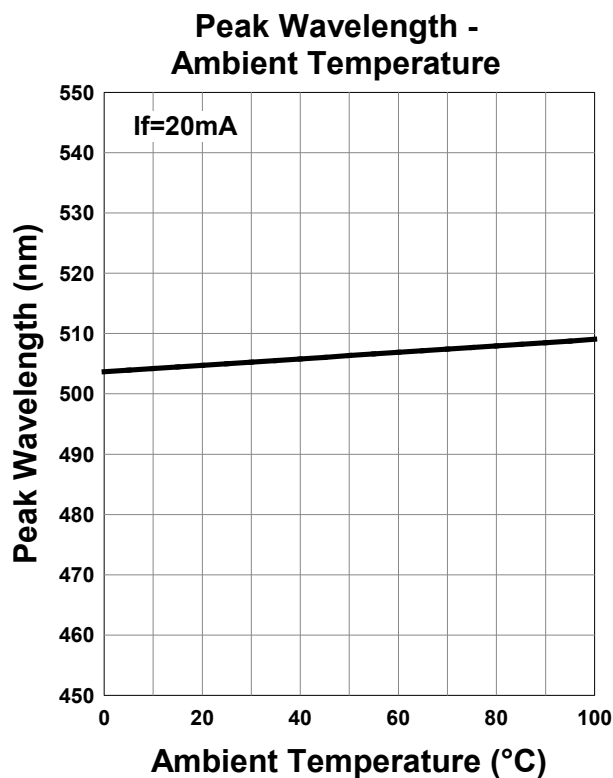
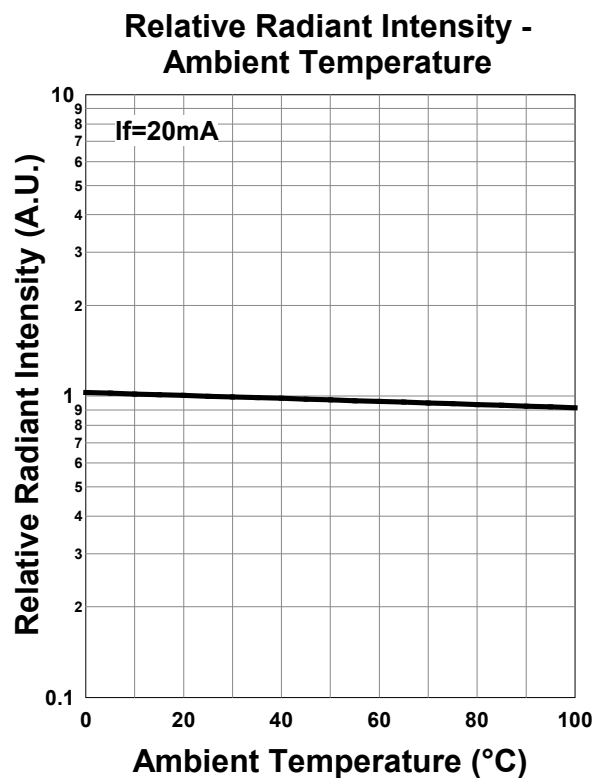
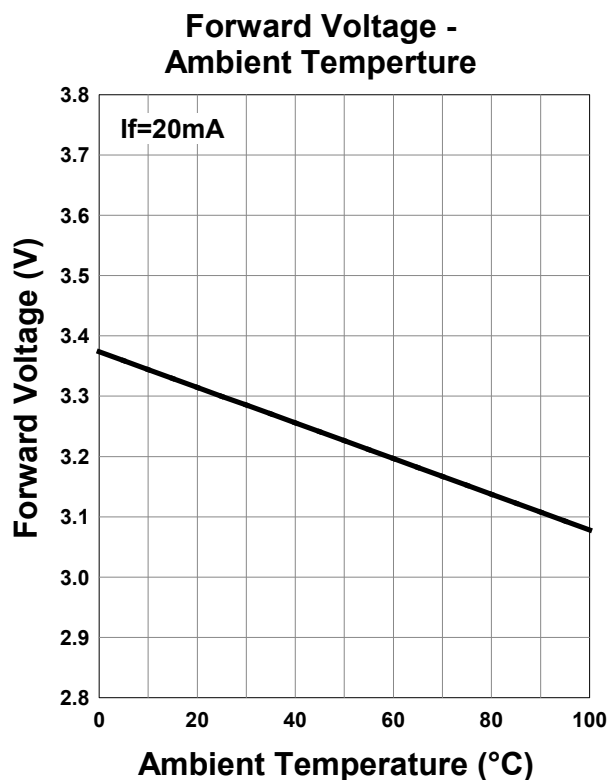
Forward Current - Pulse Duration



Allowable Forward Current - Ambient Temperature



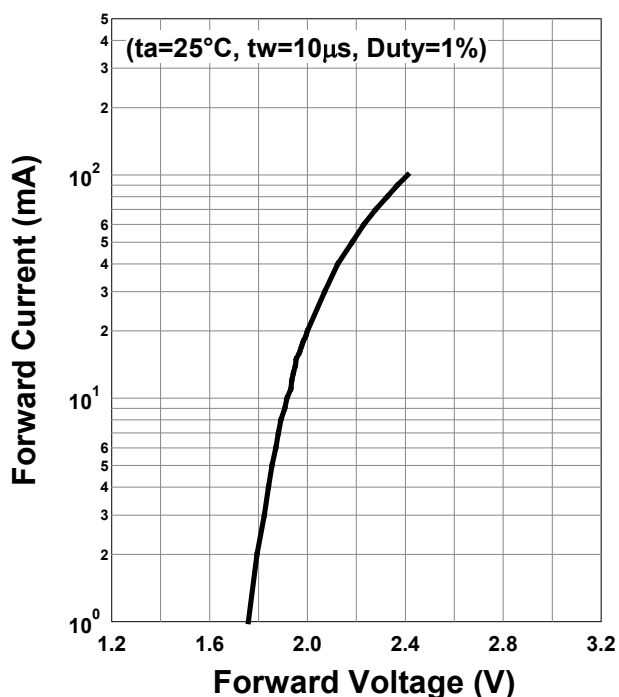
505nm



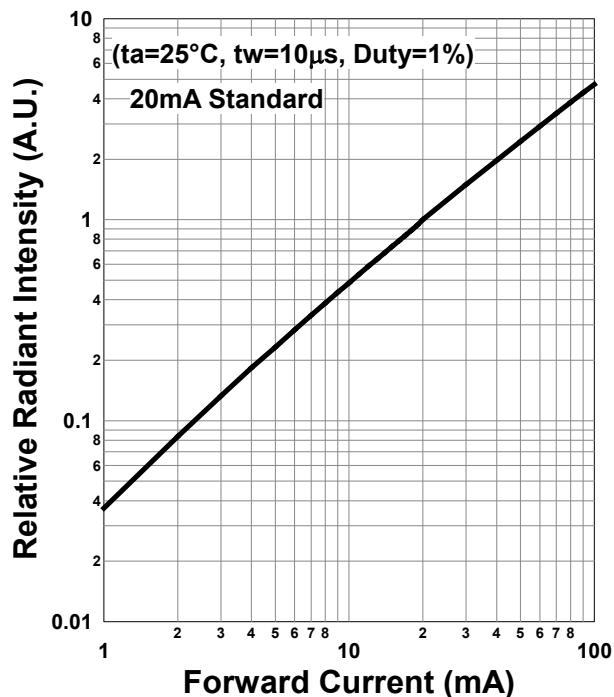
Typical Characteristic Curves

630nm

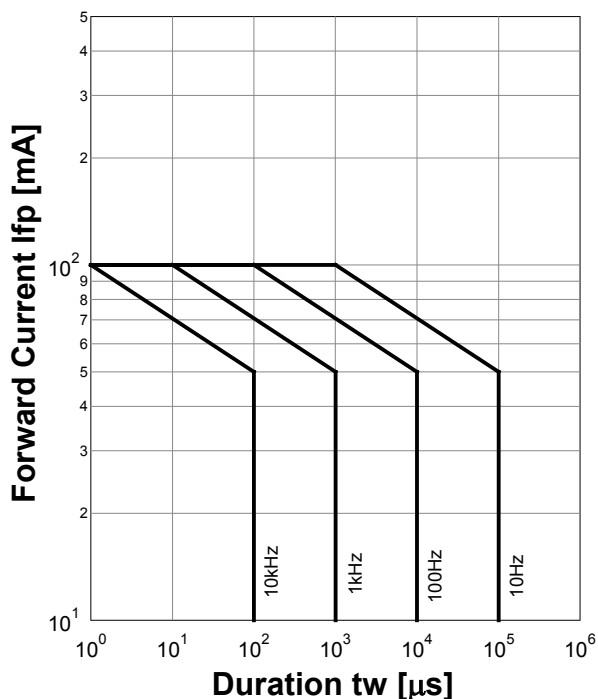
Forward Current - Forward Voltage



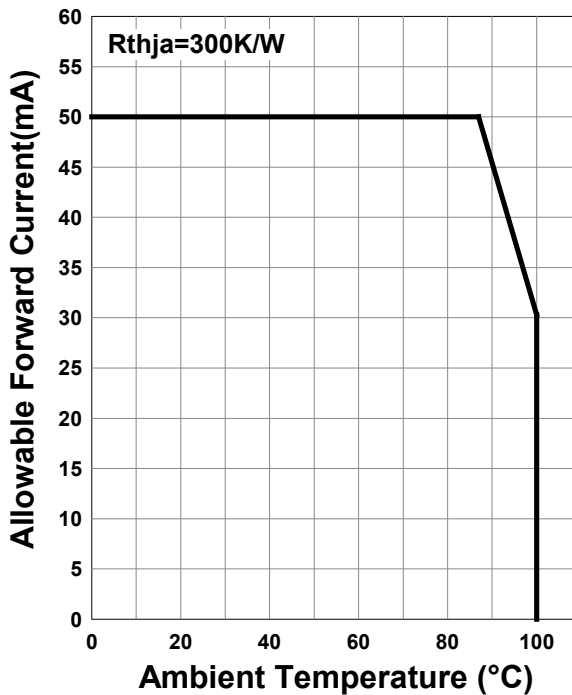
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

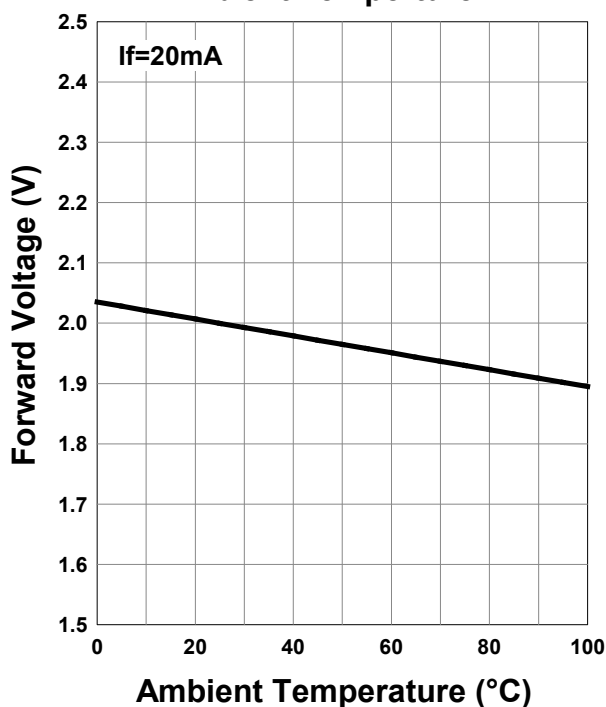


Allowable Forward Current - Ambient Temperature

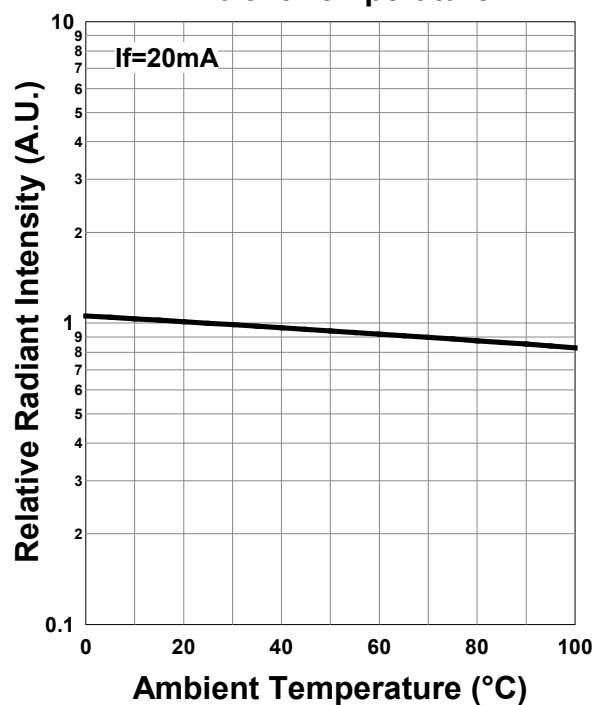


630nm

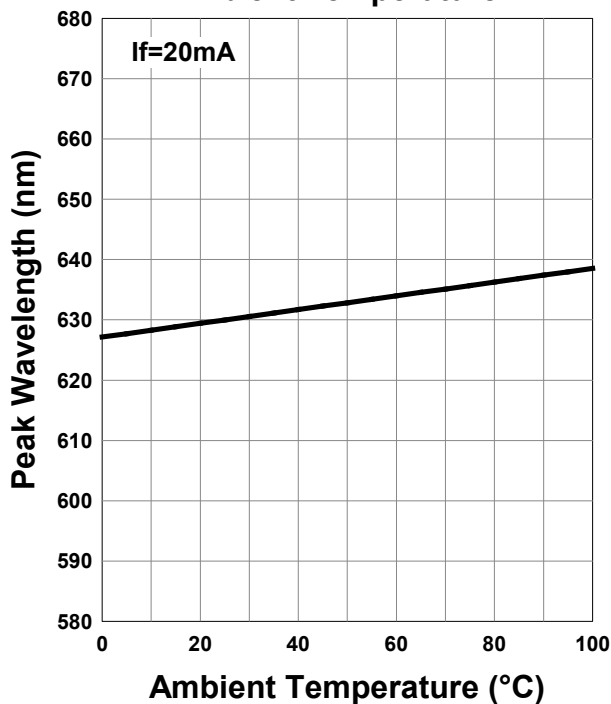
**Forward Voltage -
Ambient Temperature**



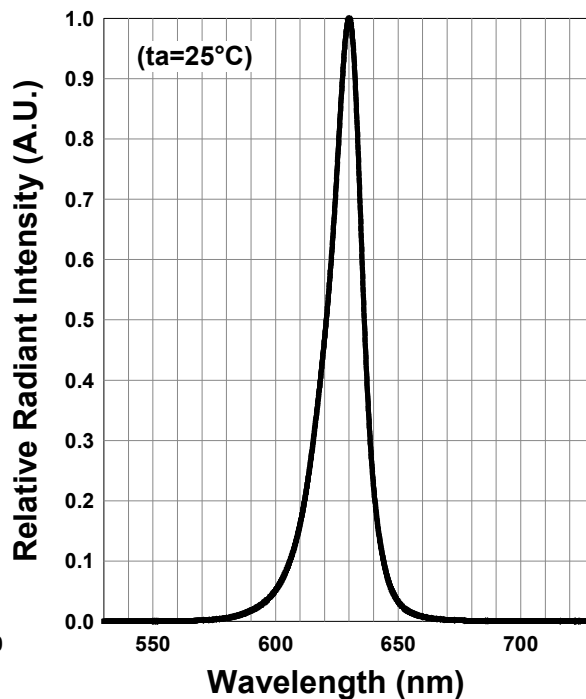
**Relative Radiant Intensity -
Ambient Temperature**



**Peak Wavelength -
Ambient Temperature**



Relative Spectral Emission



Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

Product data and parameters may vary by user application and over time.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.