

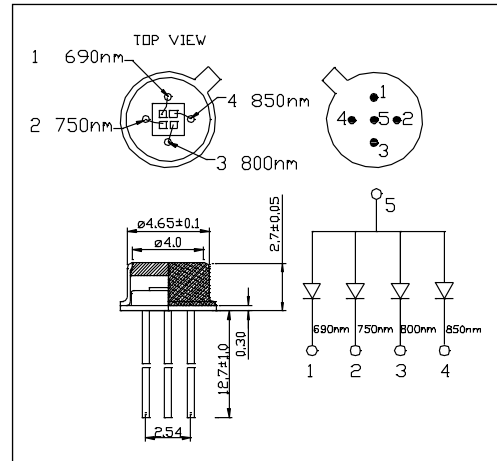
L6990/750/800/850-40B59
Multi-Wavelength LED

This product consists of AlGaAs(690,750,800,850nm) LED mounted on TO-45 5pins type stem with a glass lens. Chips are connected as anode common.

<Specifications>

1. Product Name: Multi-Wavelength LED Lamp
2. Type Number: L6990/750/800/850-40B59
3. Chip:
 - Chip material: AlGaAs
 - Peak Wavelength: 690,750,800,850nm
4. Package:
 - Stem: TO-46, 5pins type
 - Lens: Φ5mm Glass Flat Lens - Φ5mm Aperture

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]						
Item	Symbol	Maximum Rated Value				Unit
		690	750	800	850	
Power Dissipation	PD	120	190	200	180	mW
Forward Current	IF	50	100	100	100	mA
Pulse Forward Current	IFP	200	500	500	1000	mA
Reverse Voltage	VR	5				V
Thermal Resistance	Rthja	240				K/W
Junction Temperature	Tj	120				°C
Operating Temperature	TOPR	-40 ~ +100				°C
Storage Temperature	TSTG	-40 ~ +100				°C
Soldering Temperature*	TSOL	250				°C

* Soldering condition must be completed within 5 seconds at 250°C and it is allowed in the area apart 3mm from the bottom of the lamp.



690nm

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		1.8	2.3	V
Total Radiated Power*	PO	IF=20mA		2.5		mW
Radiant Intensity**	IE	IF=20mA		1.7		mW/sr
Peak Wavelength	λP	IF=20mA	680	690	700	nm
Half Width	Δλ	IF=20mA		22		nm
Viewing Half Angle	θ1/2	IF=20mA		-		deg
Rise Time	tr	IF=20mA		35		ns
Fall Time	tf	IF=20mA		30		ns

* Measured by S3584-08

** Measured by CIE127-2007 Condition B.

750nm

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		1.6	1.9	V
Total Radiated Power*	PO	IF=20mA		3.5		mW
Radiant Intensity**	IE	IF=20mA		2.5		mW/sr
Peak Wavelength	λP	IF=20mA	740	750	760	nm
Half Width	Δλ	IF=20mA		24		nm
Viewing Half Angle	θ1/2	IF=20mA		-		deg
Rise Time	tr	IF=20mA		30		ns
Fall Time	tf	IF=20mA		30		ns

* Measured by S3584-08

** Measured by CIE127-2007 Condition B.

800nm

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		1.6	1.8	V
Total Radiated Power*	PO	IF=20mA		4.6		mW
Radiant Intensity**	IE	IF=20mA		2.8		mW/sr
Peak Wavelength	λP	IF=20mA	790	800	810	nm
Half Width	Δλ	IF=20mA		29		nm
Viewing Half Angle	θ1/2	IF=20mA		-		deg
Rise Time	tr	IF=20mA		35		ns
Fall Time	tf	IF=20mA		30		ns

* Measured by S3584-08

** Measured by CIE127-2007 Condition B.

850nm

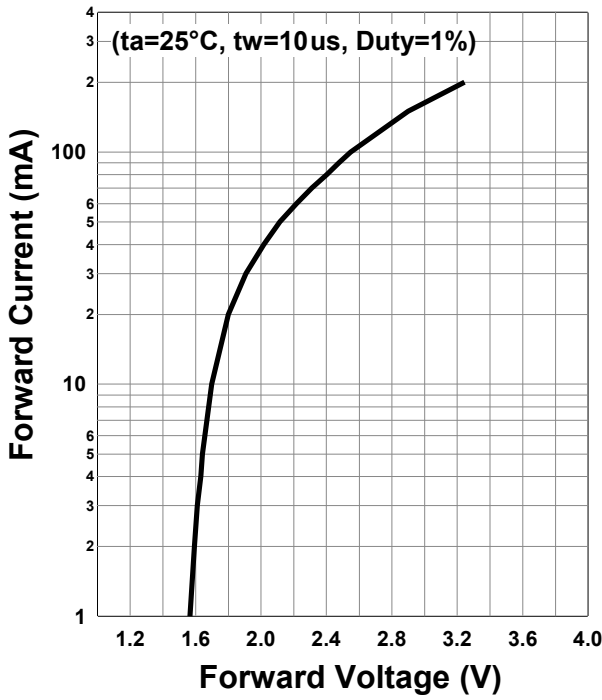
Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		1.5	1.8	V
Total Radiated Power*	PO	IF=20mA		4.3		mW
Radiant Intensity**	IE	IF=20mA		3.7		mW/sr
Peak Wavelength	λP	IF=20mA	840	850	860	nm
Half Width	Δλ	IF=20mA		25		nm
Viewing Half Angle	θ1/2	IF=20mA		-		deg
Rise Time	tr	IF=20mA		30		ns
Fall Time	tf	IF=20mA		30		ns

* Measured by S3584-08

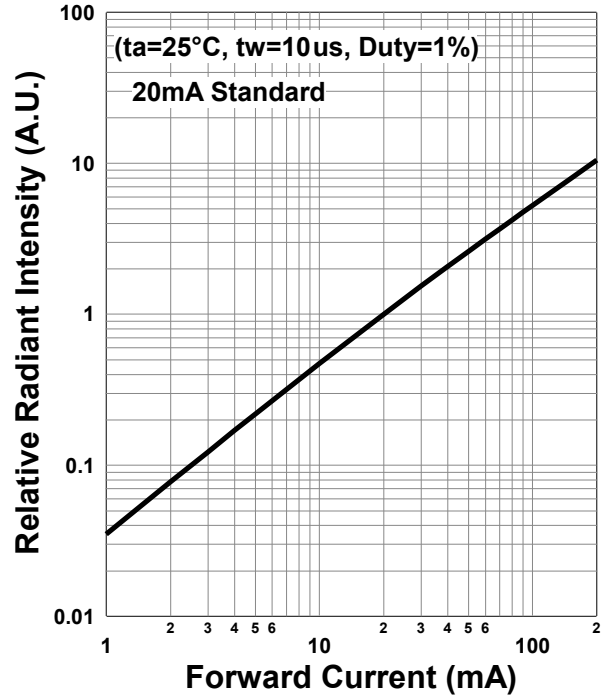
** Measured by CIE127-2007 Condition B.

690nm

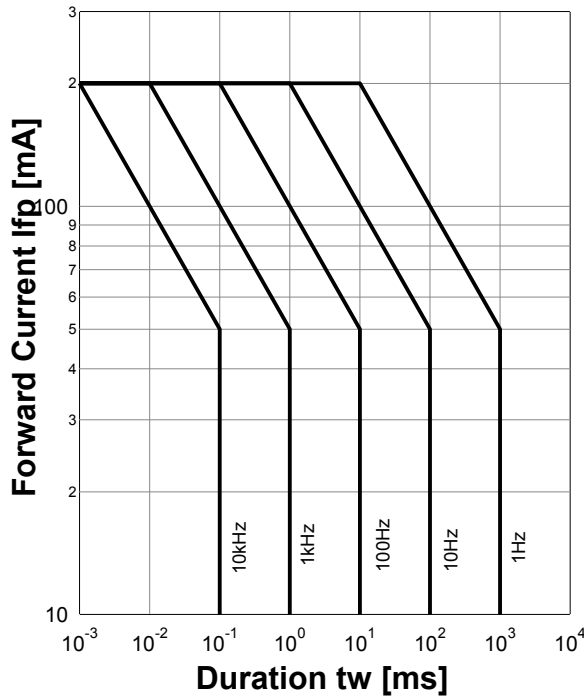
Forward Current - Forward Voltage



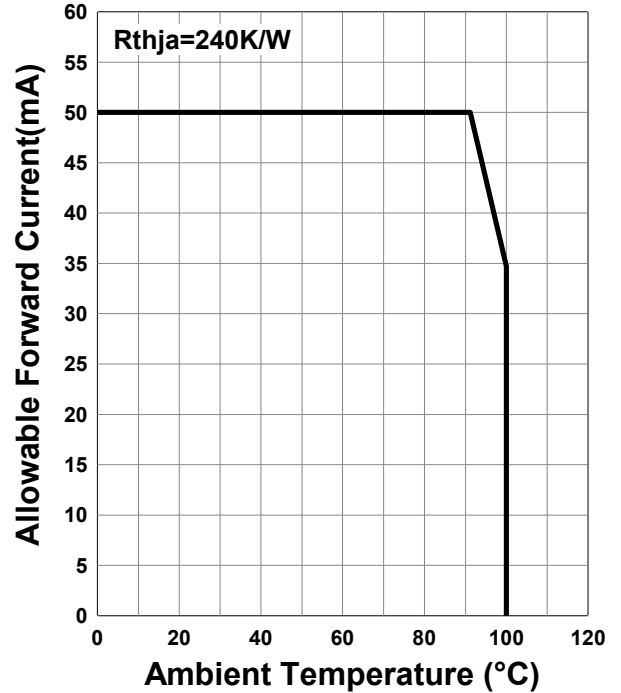
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

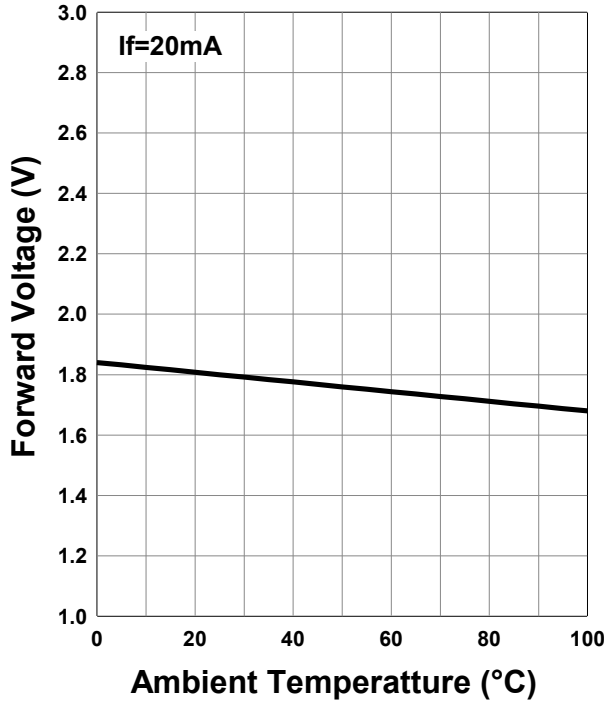


Allowable Forward Current - Ambient Temperature

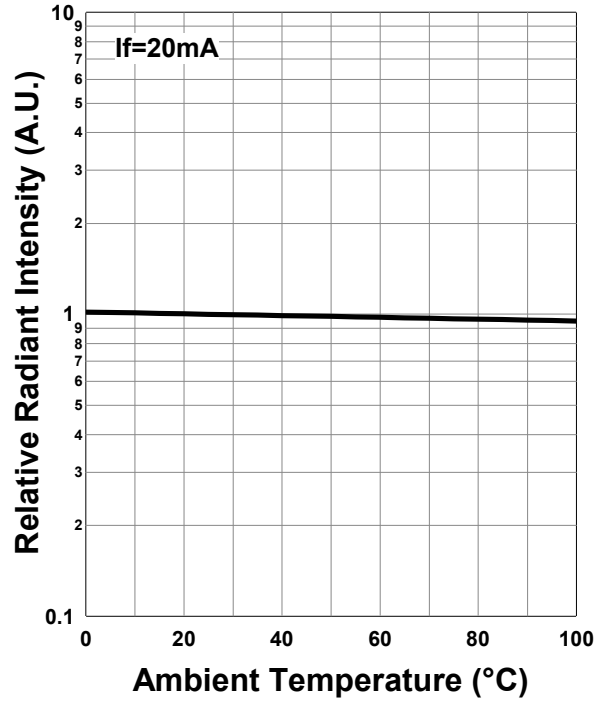


690nm

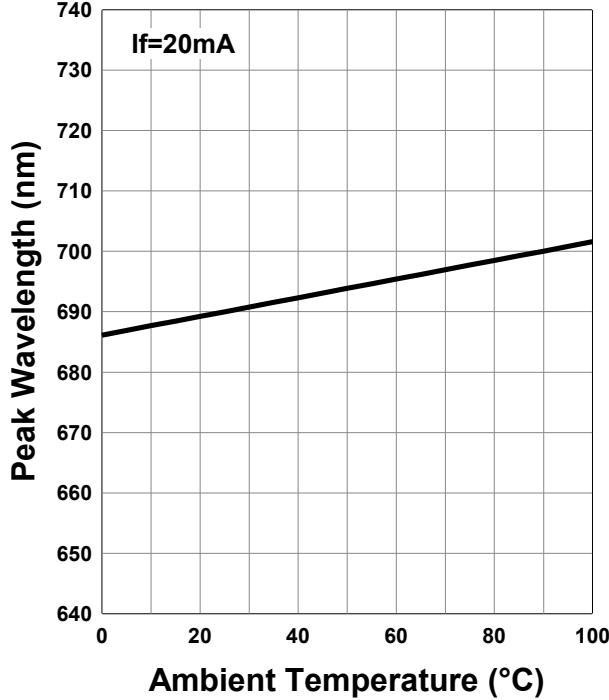
Forward Voltage - Ambient Temperature



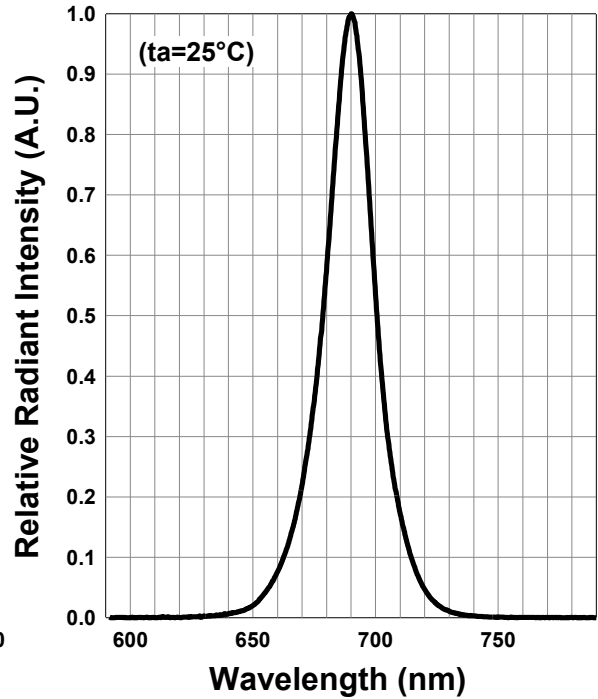
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature

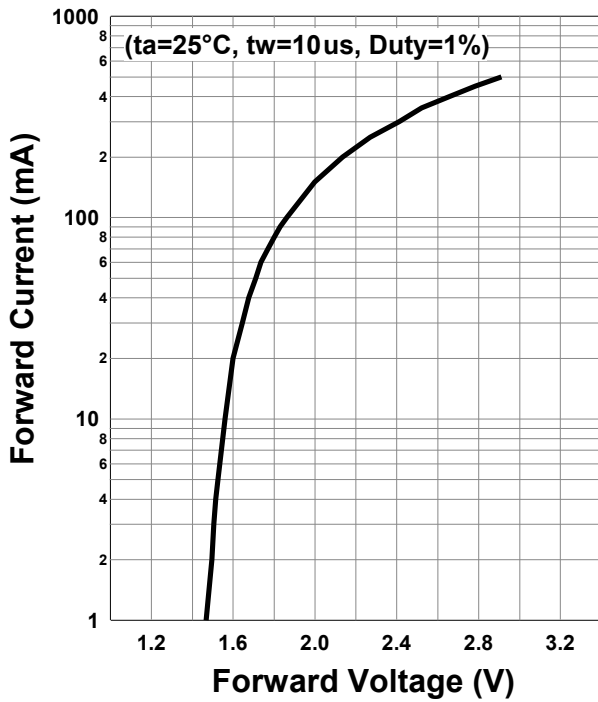


Relative Spectral Emission

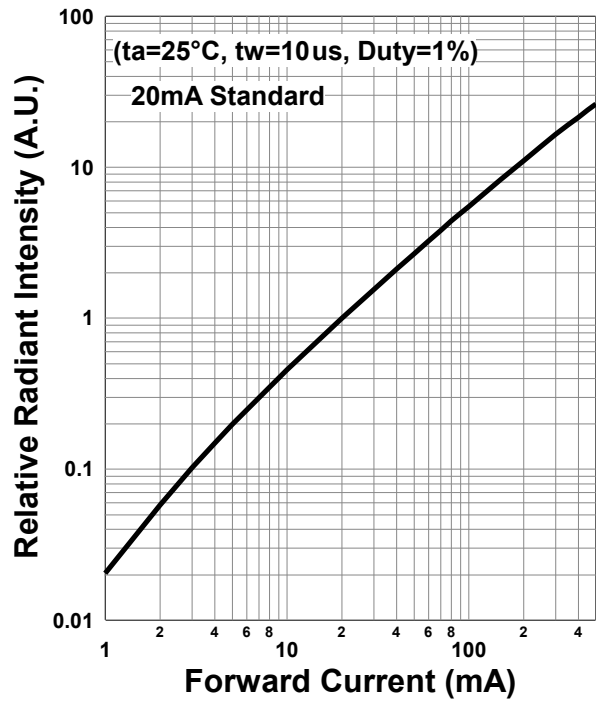


750nm

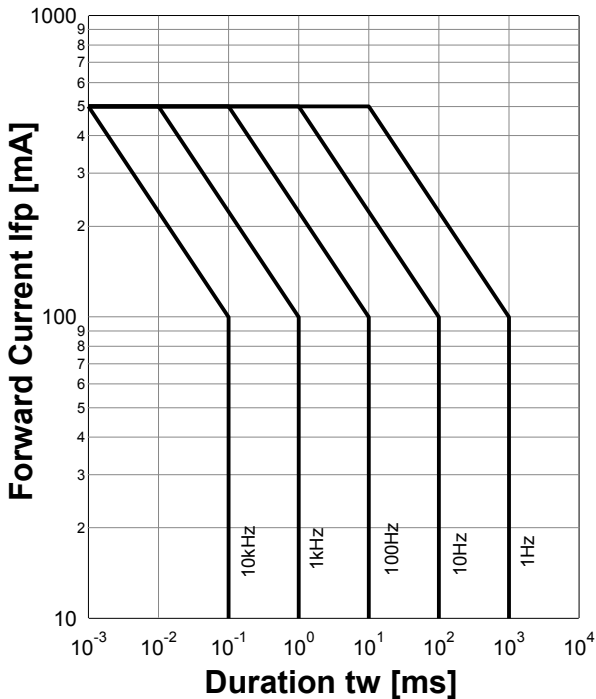
Forward Current - Forward Voltage



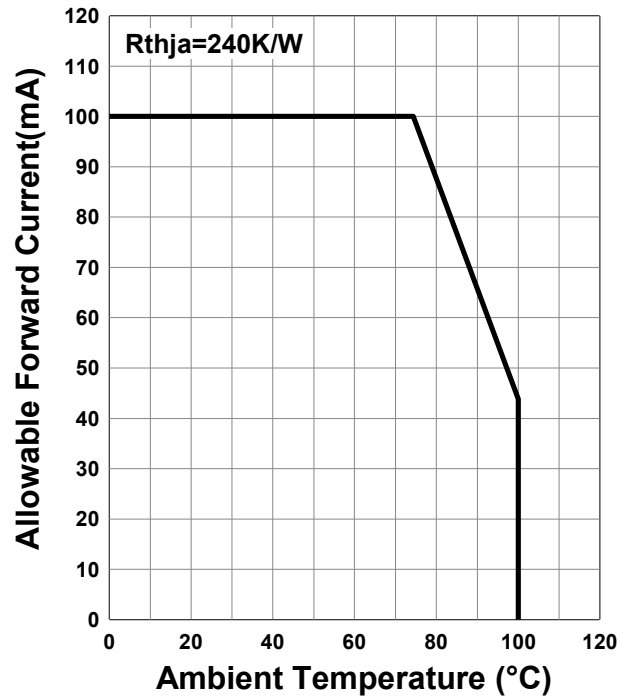
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

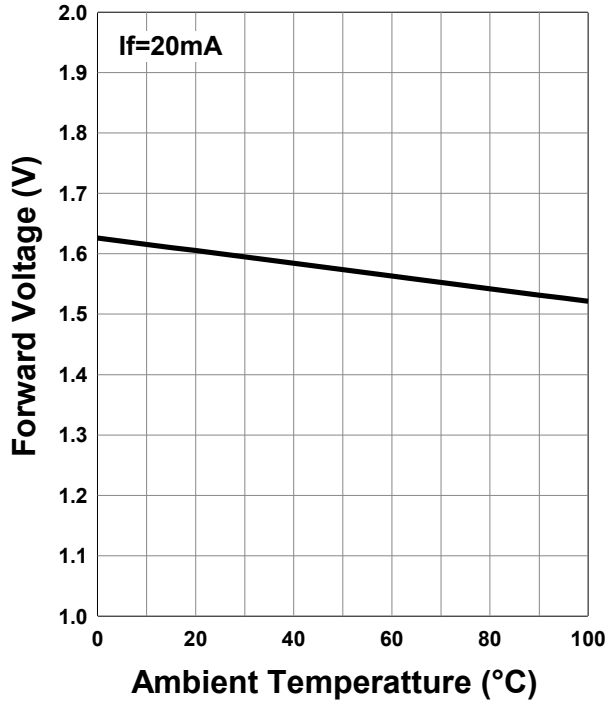


Allowable Forward Current - Ambient Temperature

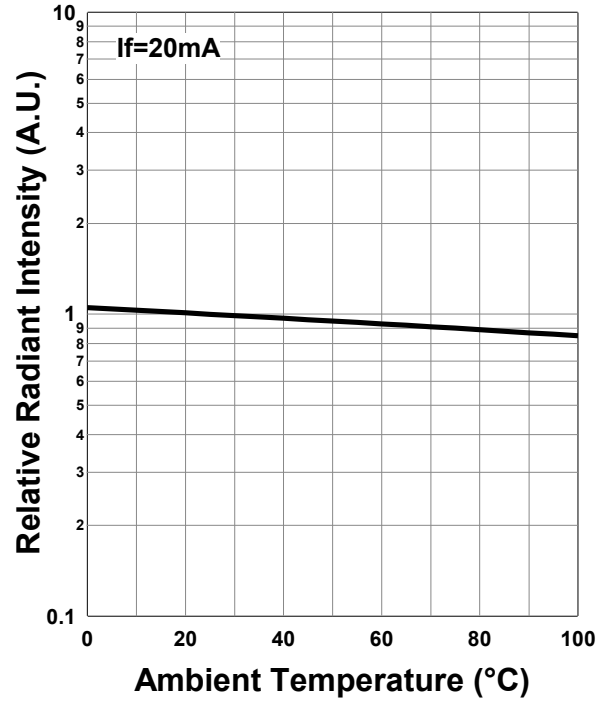


750nm

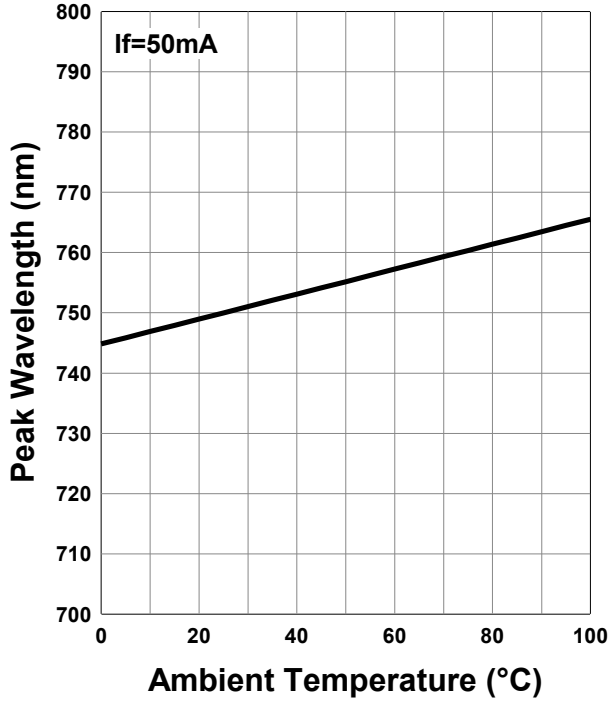
Forward Voltage - Ambient Temperature



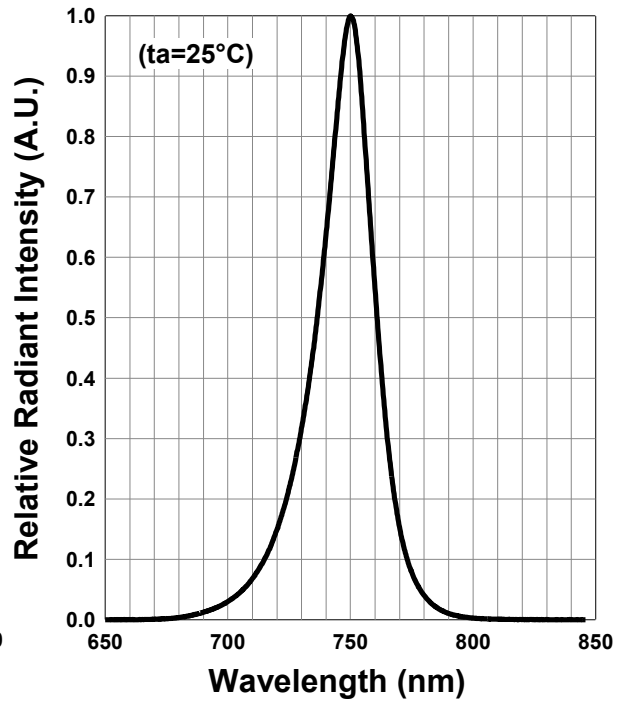
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature

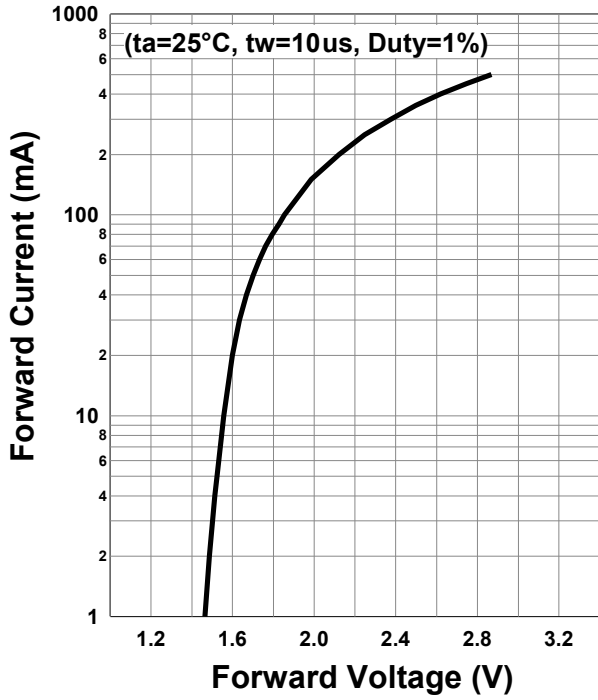


Relative Spectral Emission

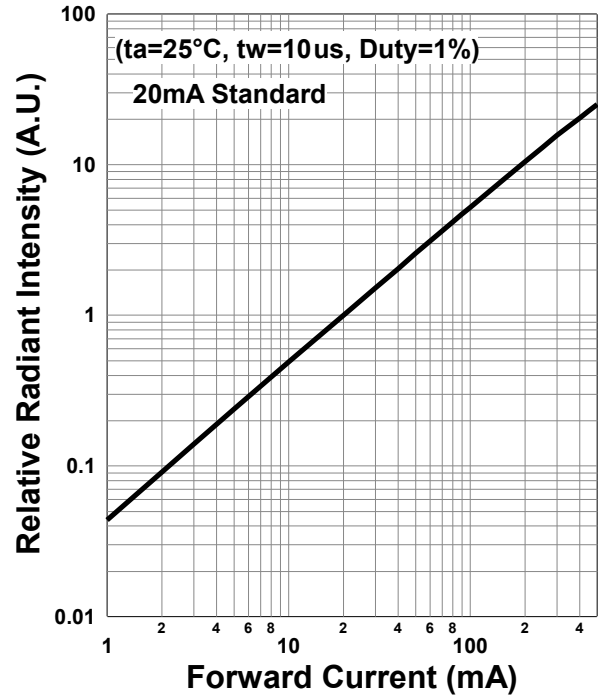


800nm

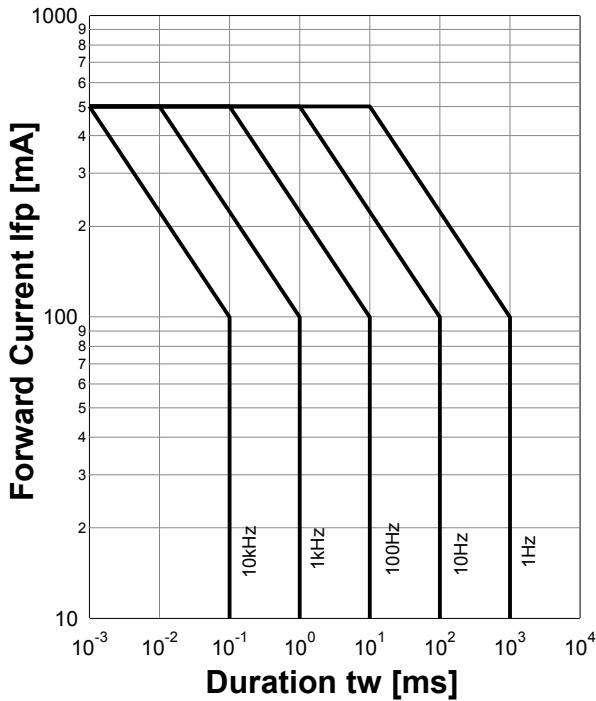
Forward Current - Forward Voltage



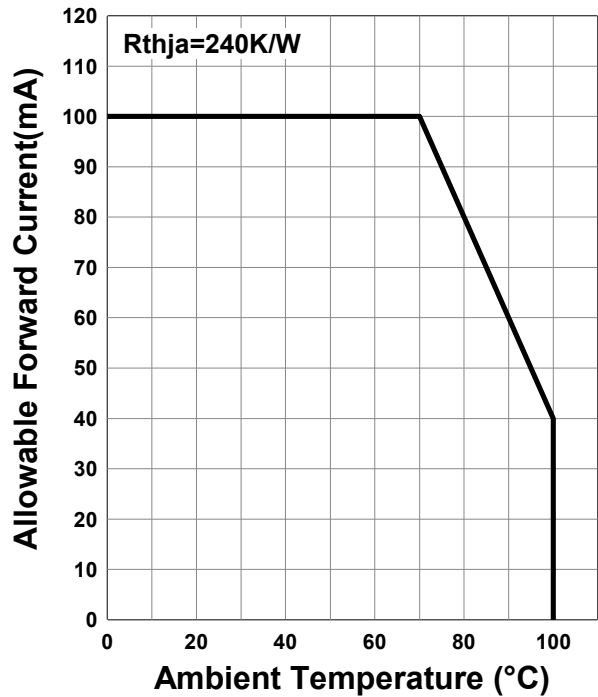
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

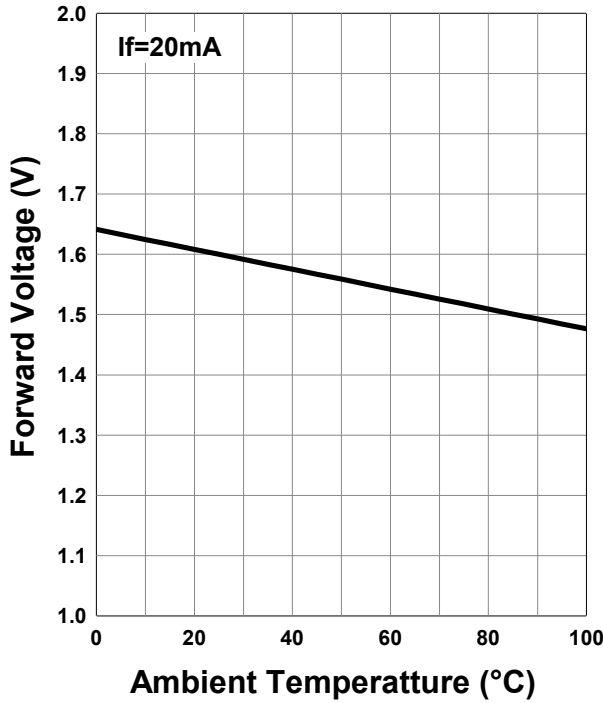


Allowable Forward Current - Ambient Temperature

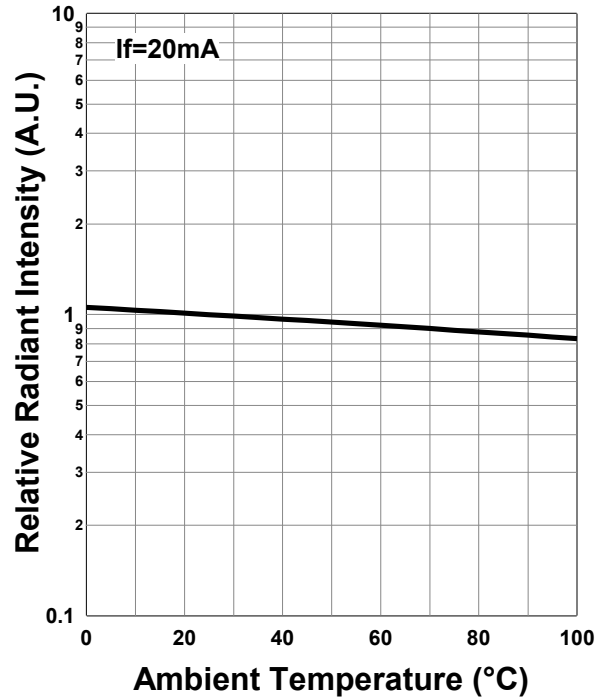


800nm

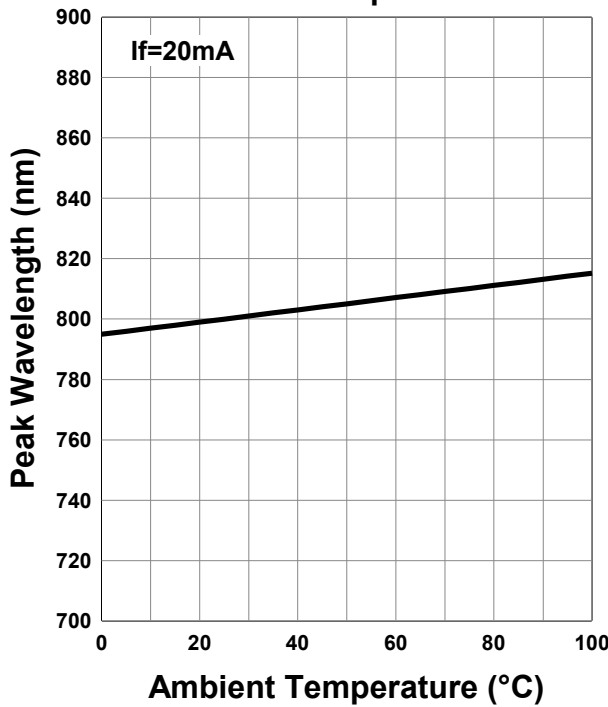
Forward Voltage - Ambient Temperature



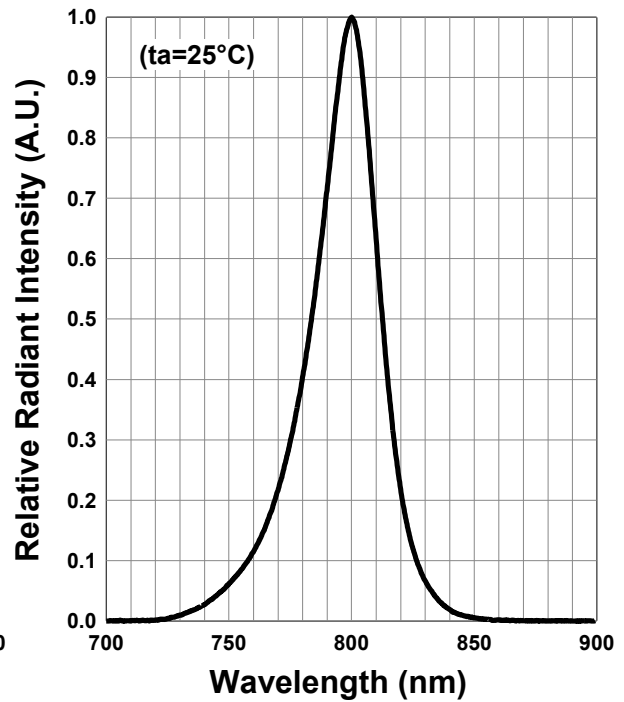
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature

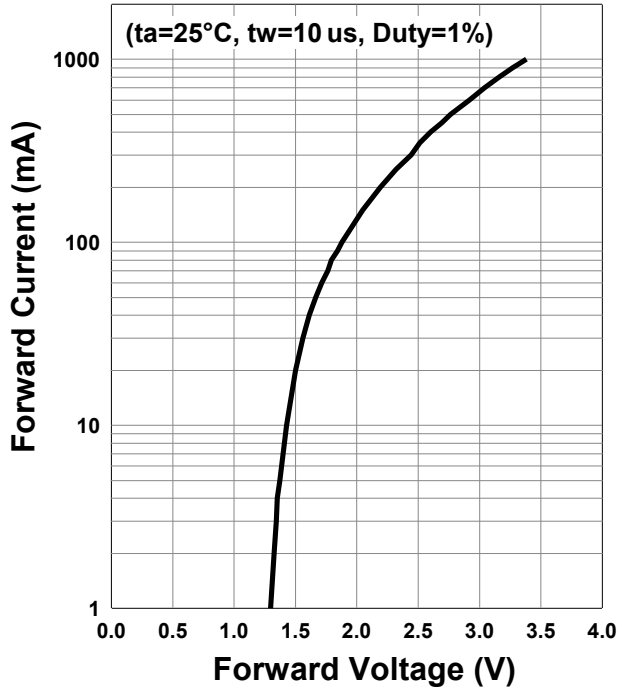


Relative Spectral Emission

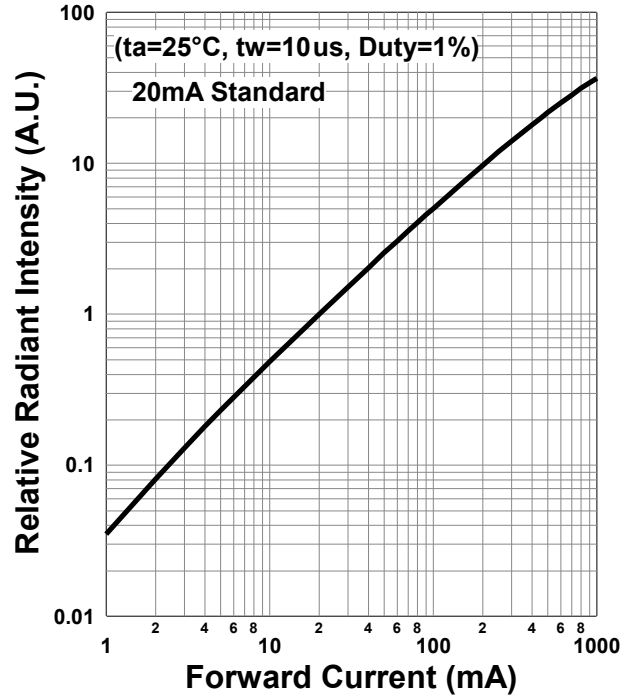


850nm

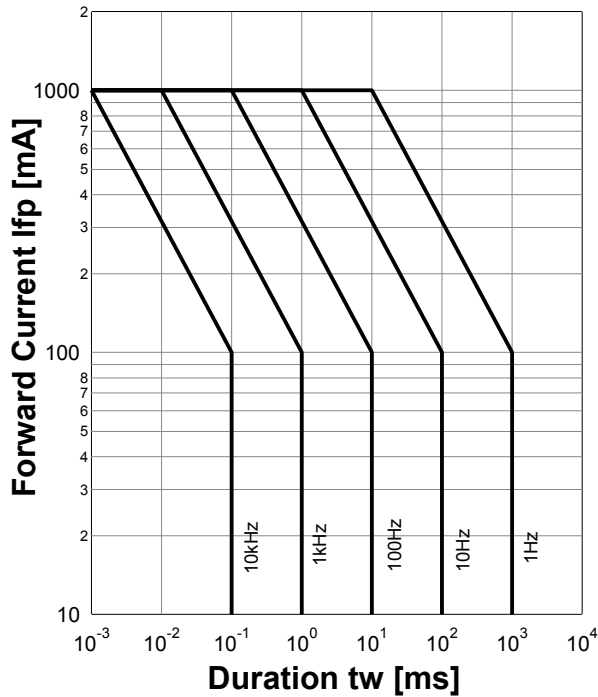
Forward Current - Forward Voltage



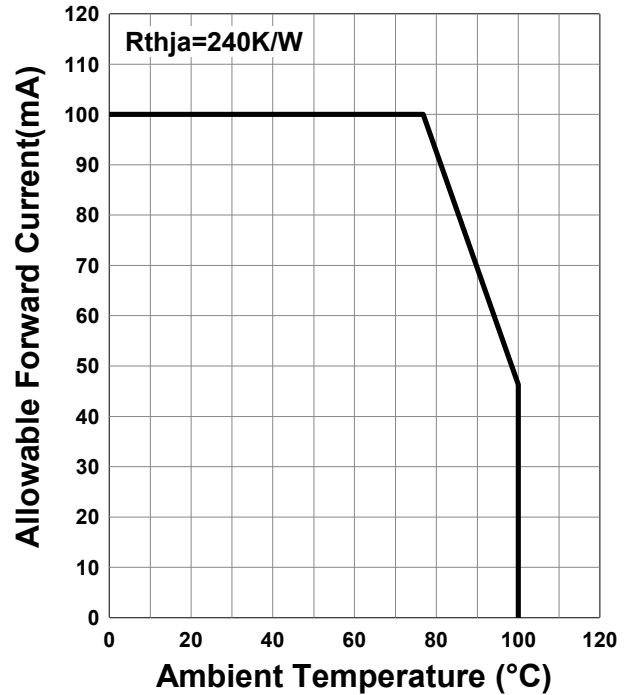
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

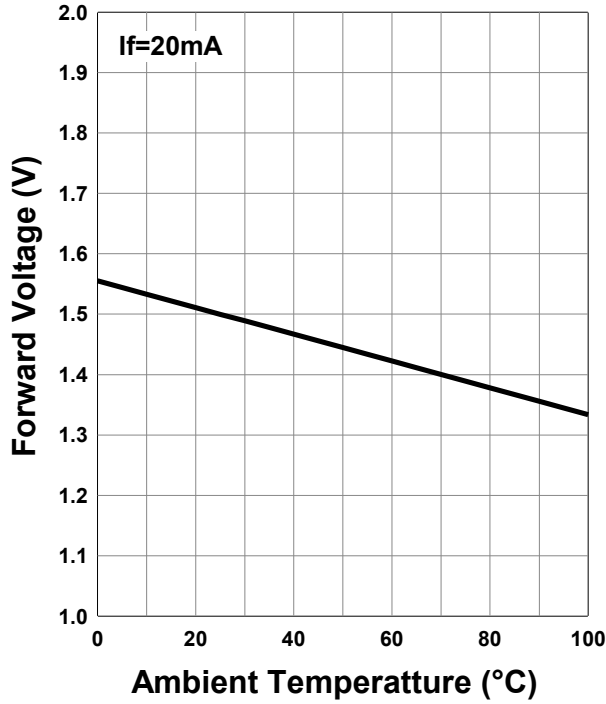


Allowable Forward Current - Ambient Temperature

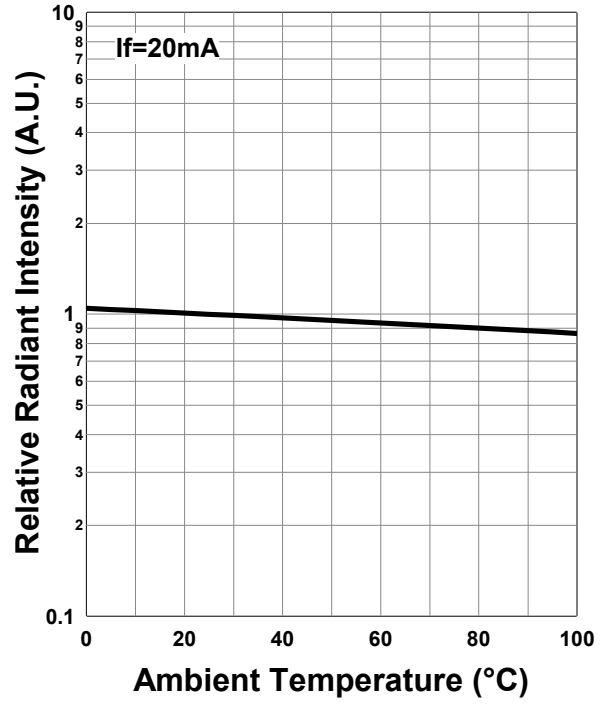


850nm

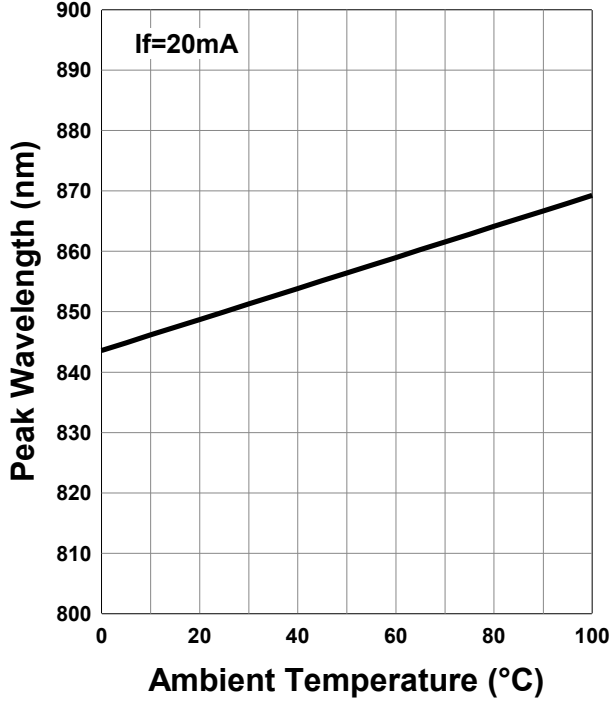
Forward Voltage - Ambient Temperature



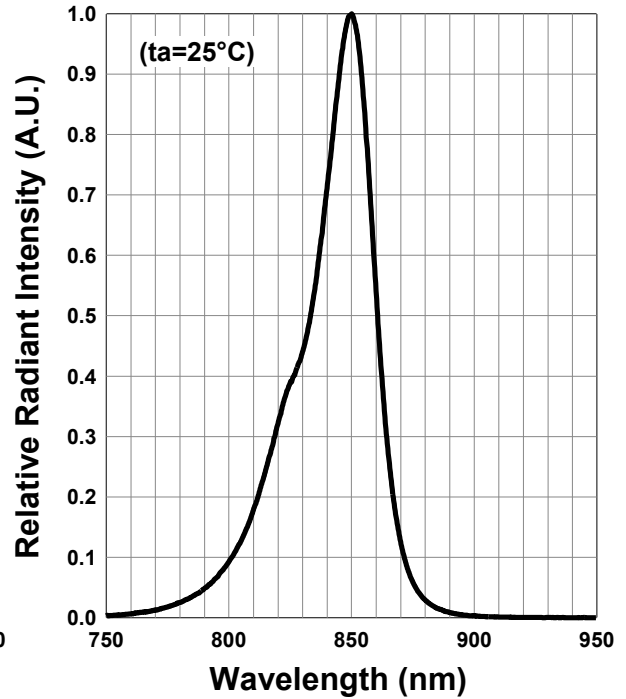
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature



Relative Spectral Emission



Disclaimer

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