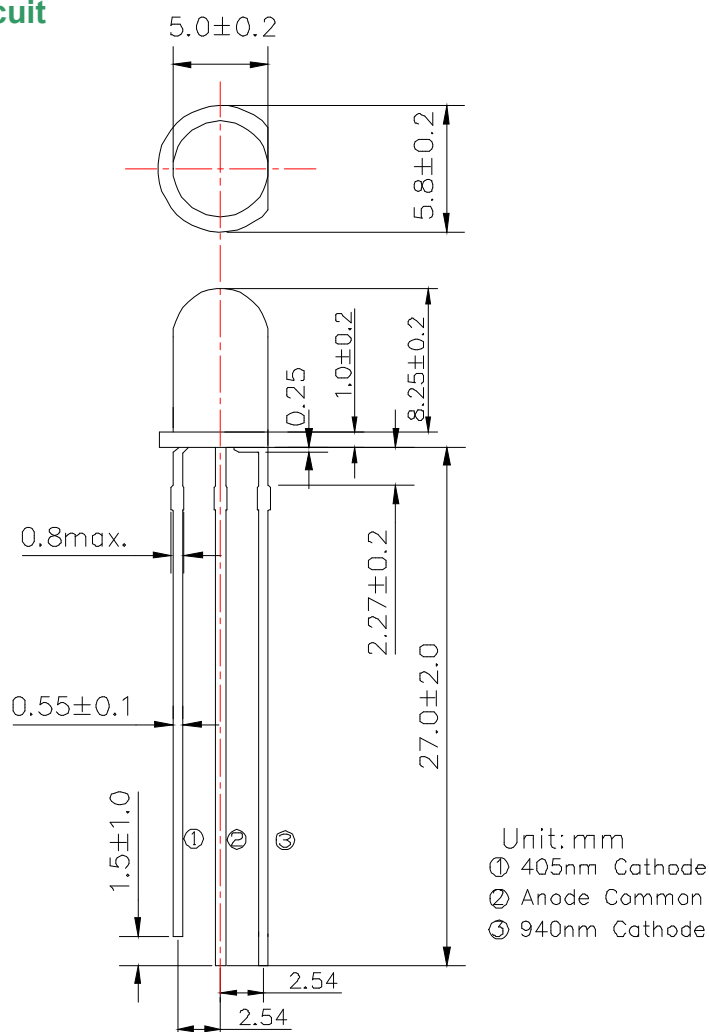




L660N/940-04A

Multi Wavelength LED

Outline and Internal Circuit



Features

- Chip Material : AlGaInP(660nm) , AlGaAs(940nm)
- Chip Dimension : 350um * 350um(660nm) , 400um * 400um(940nm)
- Number of Chips : 2pcs
- Peak Wavelength : 660 / 940nm typ.
- Lead Frame Die : Φ5mm clear molding
- Package Resin : Soldered (Lead Free)
- Lens : Epoxy Resin

Application

660nm

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	120	mW
Forward Current	IF	50	mA
Pulse Forward Current	IFP	300	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjs	300	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	TSOL	250	°C

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

‡Soldering condition : Refer to technical support information on the website.

Optical and Electrical Characteristics (Tc=25°C)

(*: 100% testing, **: reference value)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		1.9	2.3	V	IF=20mA*
	VFP		3.5			IFP=300mA**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	8.0	12		mW	IF=20mA*
			150			IFP=300mA**
Luminous Flux	Φ_v		800		mlm	IF=20mA**
Peak Wavelength	λ_p	650		670	nm	IF=20mA*
Dominant Wavelength	λ_D		640		nm	IF=20mA**
Half Width	$\Delta\lambda$		16		nm	IF=20mA**
Rise Time	tr		10		ns	IF=20mA**
Fall Time	tf		10		ns	IF=20mA**

‡ Radiated Power is measured by S3584-08.

940nm

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	140	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	1000	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjs	300	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	TSOL	250	°C

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

‡Soldering condition : Refer to technical support information on the website.

Optical and Electrical Characteristics (Tc=25°C)

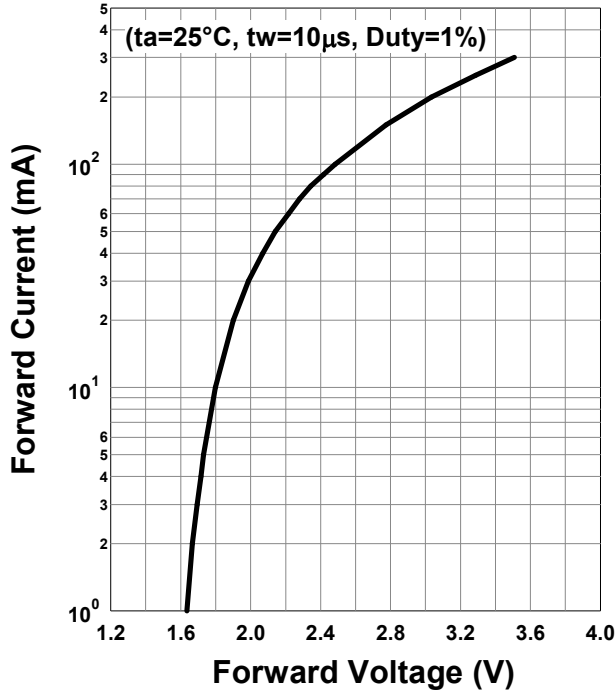
(*: 100% testing, **: reference value)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		1.2	1.4	V	IF=20mA*
	VFP		2.2			IFP=1A**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	2.9	4.2		mW	IF=20mA*
			190			IFP=1A**
Peak Wavelength	λ_p	930		950	nm	IF=20mA*
Half Width	$\Delta\lambda$		50		nm	IF=20mA**
Rise Time	tr		200		ns	IF=20mA**
Fall Time	tf		800		ns	IF=20mA**

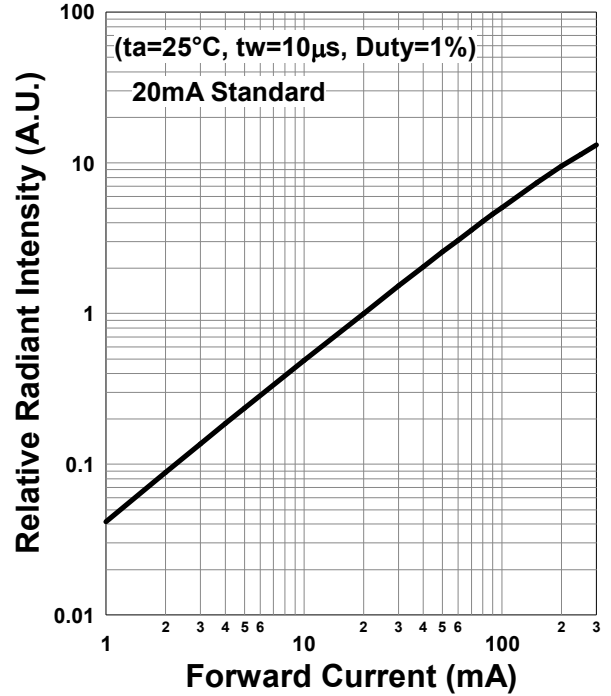
‡ Radiated Power is measured by S3584-08.

Typical Characteristic Curves

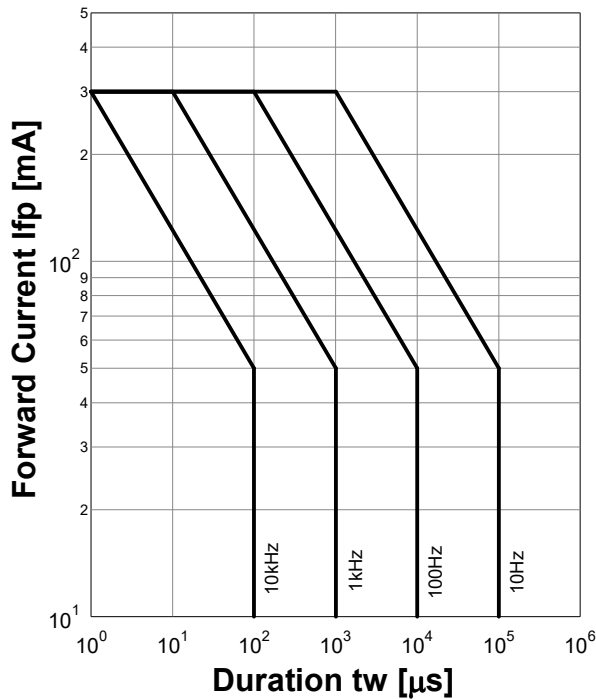
660nm Forward Current - Forward Voltage



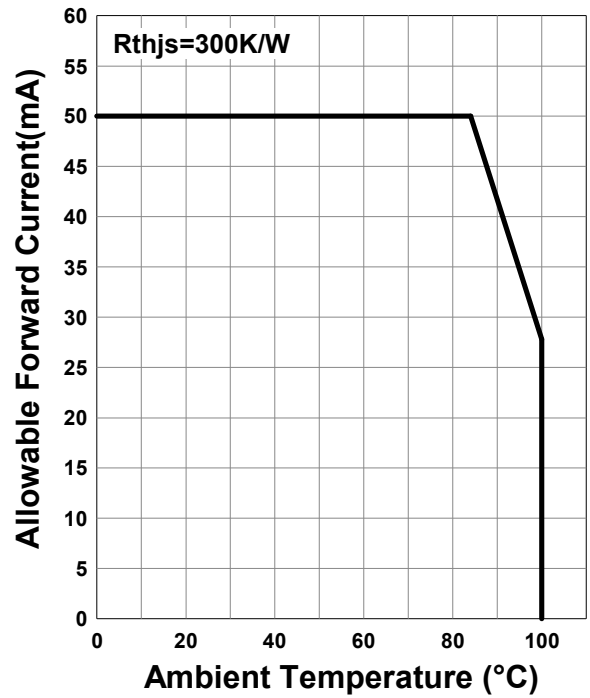
Relative Radiant Intensity - Forward Current



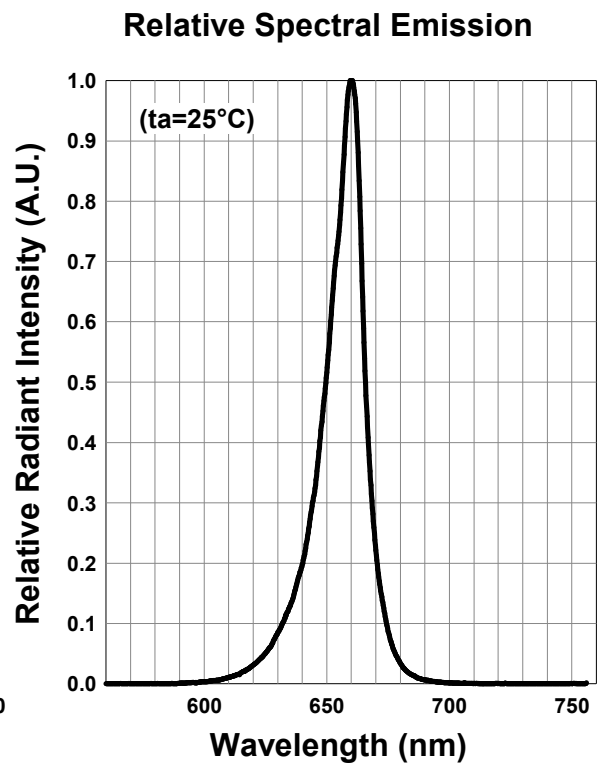
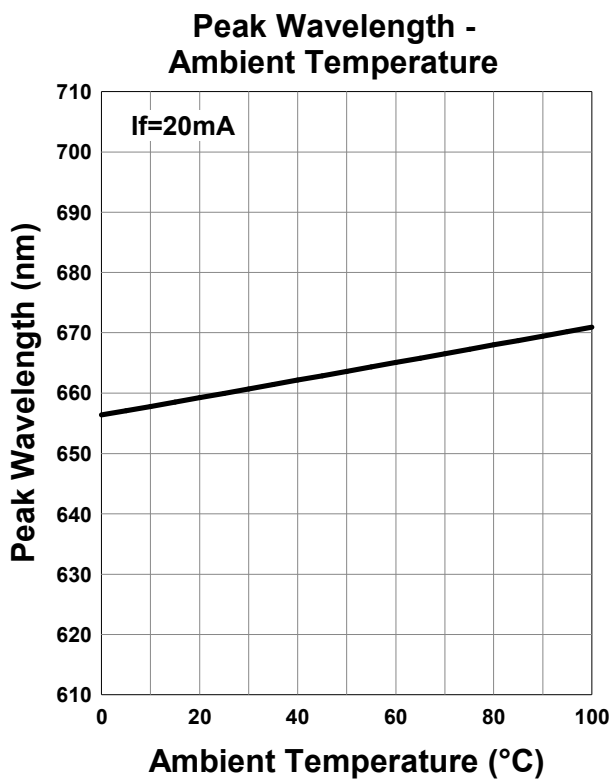
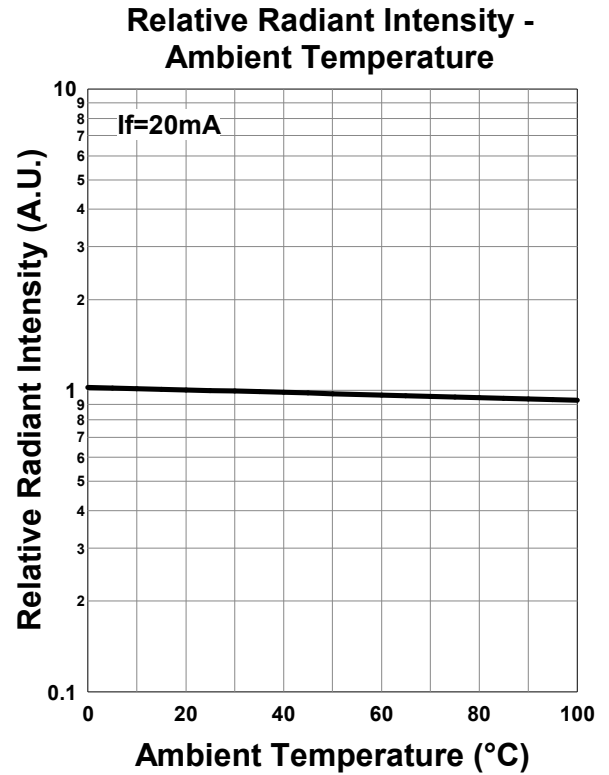
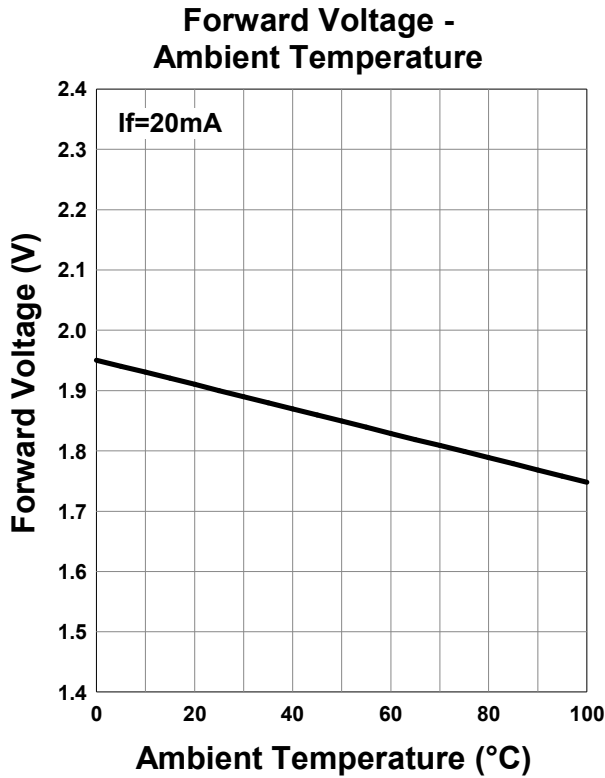
Forward Current - Pulse Duration



Allowable Forward Current - Ambient Temperature

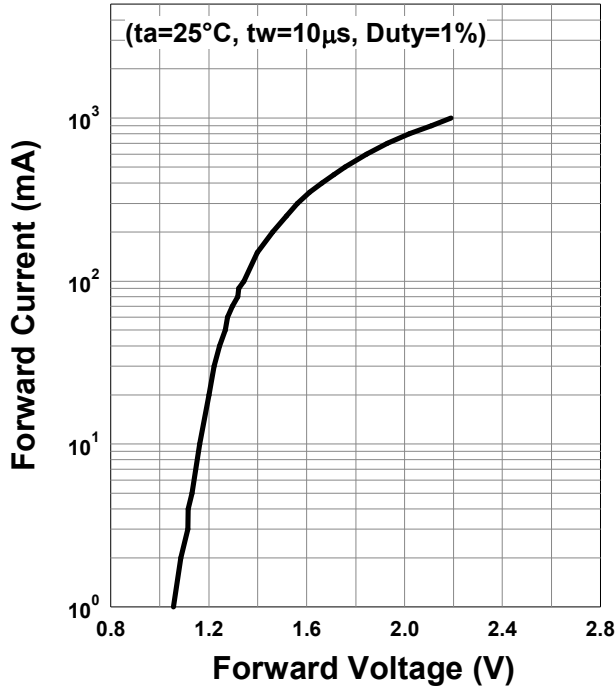


660nm

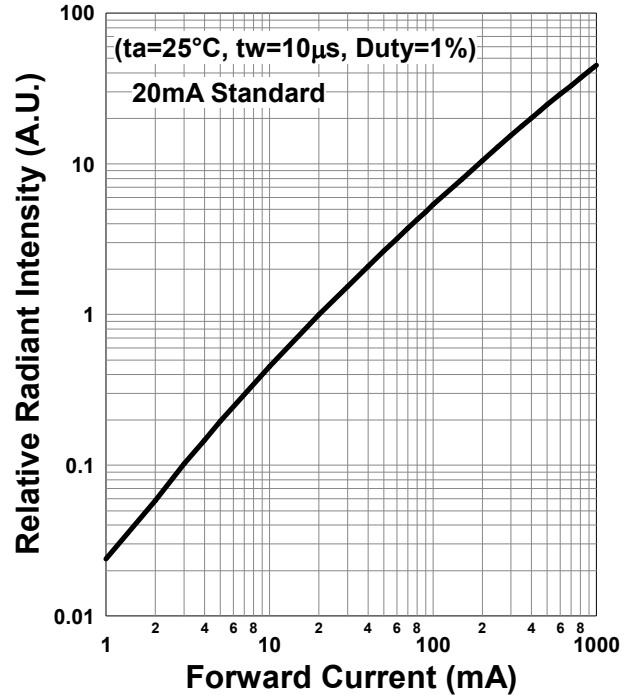


Typical Characteristic Curves 940nm

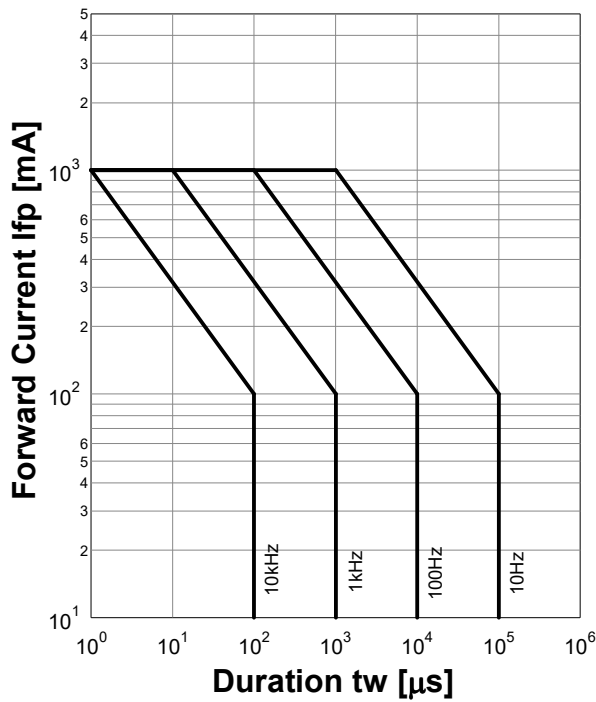
Forward Current - Forward Voltage



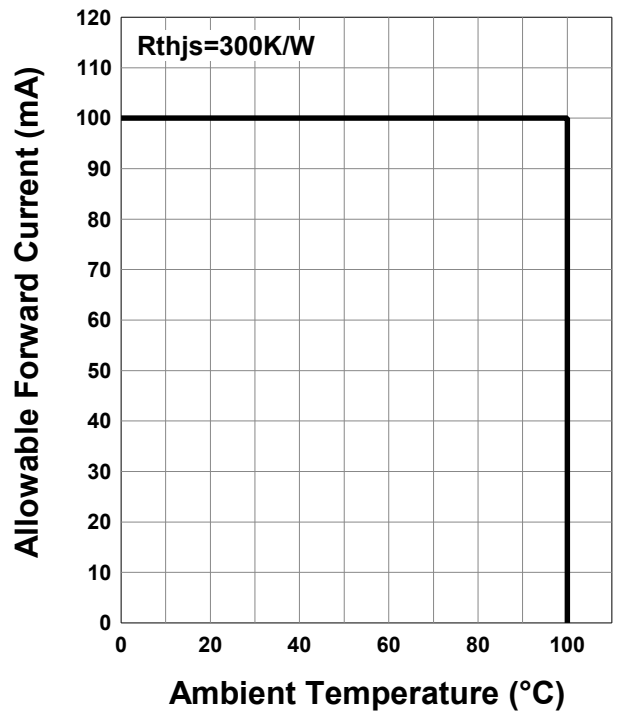
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

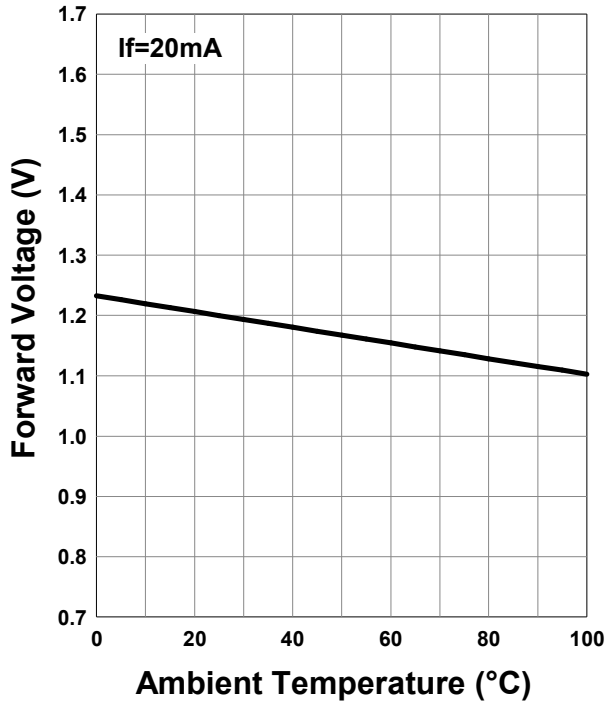


Allowable Forward Current - Ambient Temperature

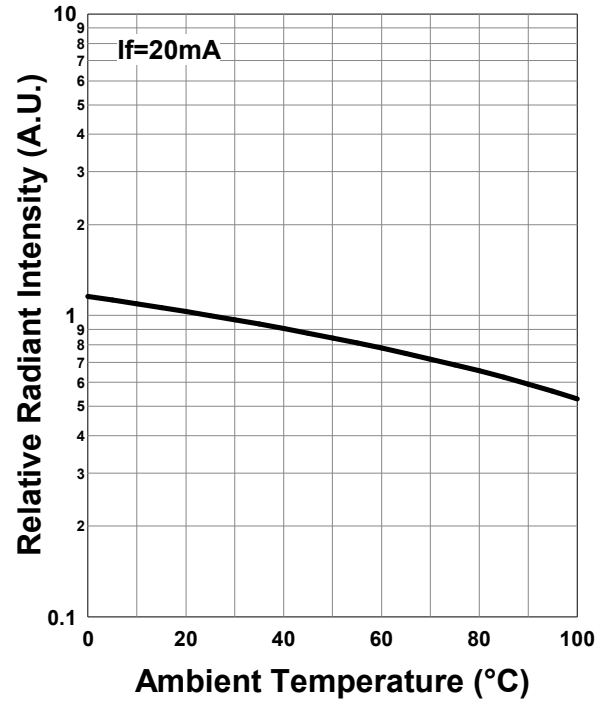


940nm

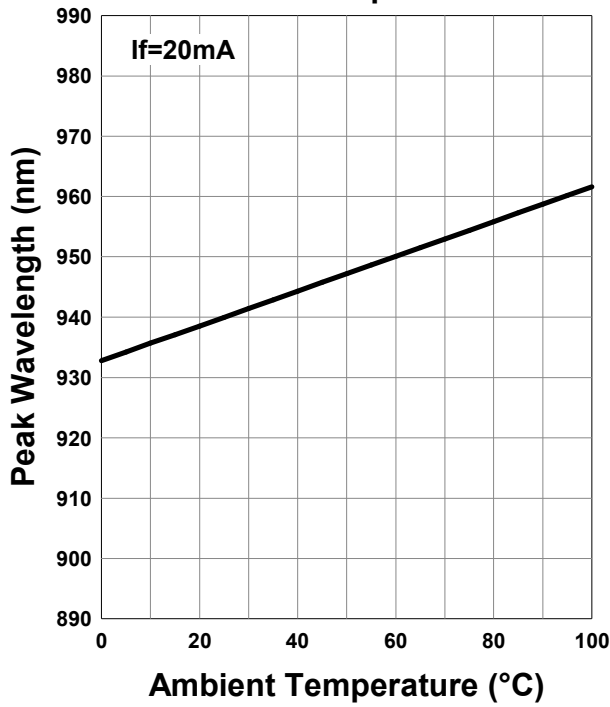
Forward Voltage - Ambient Temperature



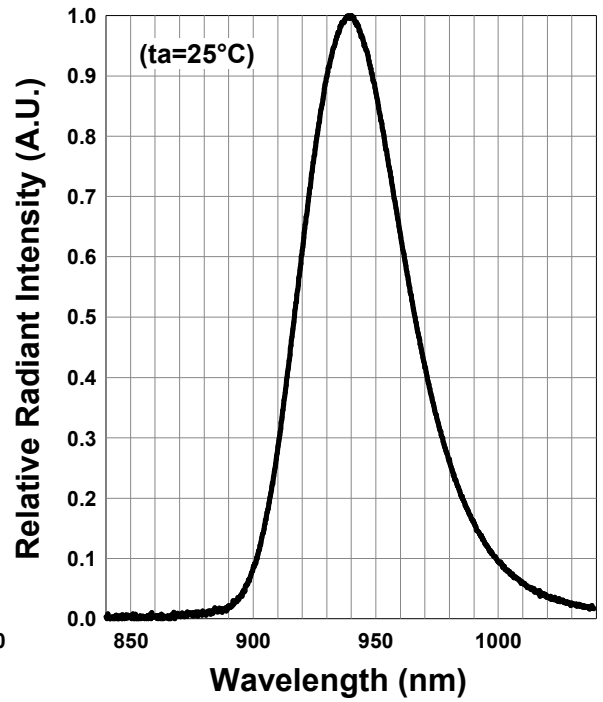
Relative Radiant Intensity - Ambient Temperature



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.