

L660N/730/805/940-40B59 multi-wavelength LED

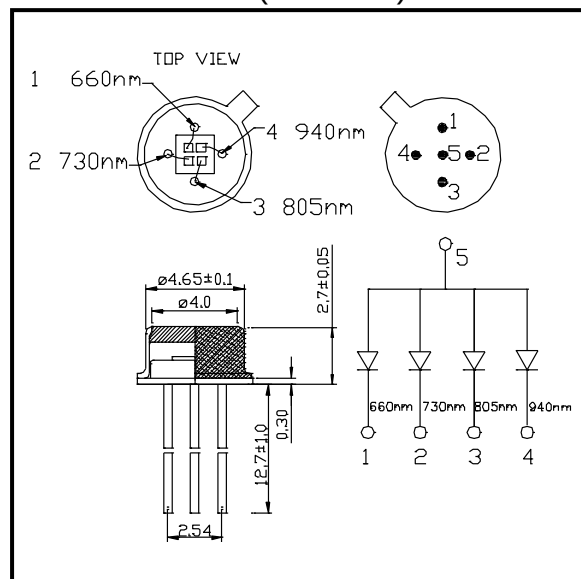
L660N/730/805/940-40B59 consists of an AlGaInP (660nm) and AlGaAs (730, 805, 940nm) LED mounted on TO-46 5pins type stem with a glass lens.

Chips are connected as anode common.

◆ Specifications

- 1) Product Name Multi-wavelength LED Lamp
- 2) Type No. L660N/730/805/940-40B59
- 3) Chip
 - (1) Chip material AlGaInP(660nm), AlGaAs(730,805,940nm)
 - (2) Peak wavelength 660, 730, 805, 940nm
- 4) Package
 - (1) Stem TO-46 5-pins type
 - (2) Lens $\Phi 5$ mm glass flat lens - $\Phi 4$ mm aperture

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value				Unit
		660	730	805	940	
Power Dissipation	PD	120	150	200	140	mW
Forward Current	IF	50	75	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: Soldering condition must be completed within 5 seconds at 250°C and is allowed in the area apart 3mm from the bottom of the lamp.



◆ Electro-Optical Characteristics [Ta=25°C]

◆ 660nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		2.1	2.3	V
Radiated Power	P _O	I _F =20mA		7.6		mW
Radiant Intensity	I _E	I _F =20mA		3.0		mW/sr
Peak Wavelength	λ_P	I _F =20mA	650	660	670	nm
Half Width	$\Delta\lambda$	I _F =20mA		16		nm
Rise Time	t _r	I _F =20mA		35		ns
Fall Time	t _f	I _F =20mA		30		ns

‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

◆ 730nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		1.7	2.0	V
Radiated Power	P _O	I _F =20mA		3.8		mW
Radiant Intensity	I _E	I _F =20mA		2.0		mW/sr
Peak Wavelength	λ_P	I _F =20mA	720	730	740	nm
Half Width	$\Delta\lambda$	I _F =20mA		24		nm
Rise Time	t _r	I _F =20mA		35		ns
Fall Time	t _f	I _F =20mA		60		ns

‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.



◆805nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		1.6	1.9	V
Radiated Power	PO	IF=20mA		4.6		mW
Radiant Intensity	IE	IF=20mA		2.8		mW/sr
Peak Wavelength	λ_P	IF=20mA	795	805	815	nm
Half Width	$\Delta\lambda$	IF=20mA		29		nm
Rise Time	tr	IF=20mA		35		ns
Fall Time	tf	IF=20mA		30		ns

‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

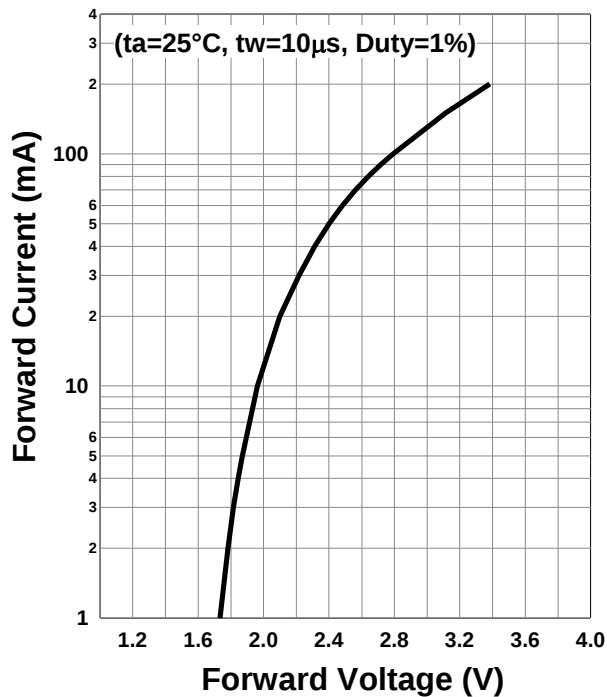
◆940nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		1.2	1.4	V
Radiated Power	PO	IF=20mA		3.0		mW
Radiant Intensity	IE	IF=20mA		1.7		mW/sr
Peak Wavelength	λ_P	IF=20mA	930	940	950	nm
Half Width	$\Delta\lambda$	IF=20mA		56		nm
Rise Time	tr	IF=20mA		1600		ns
Fall Time	tf	IF=20mA		1900		ns

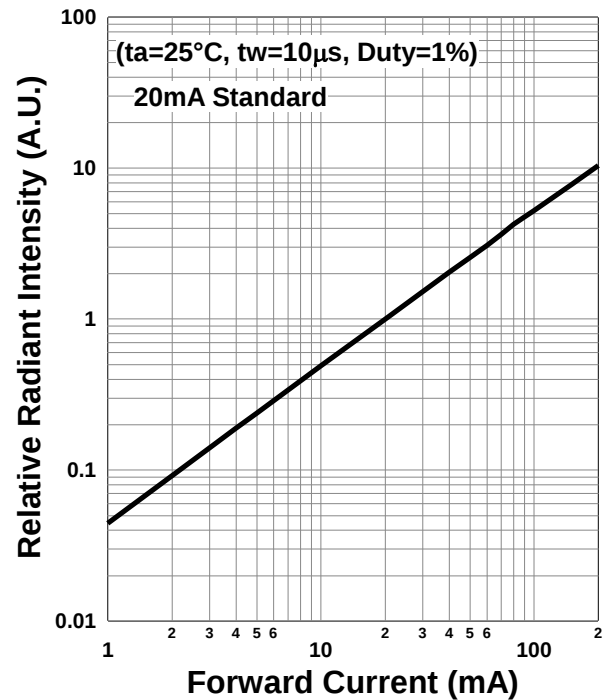
‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

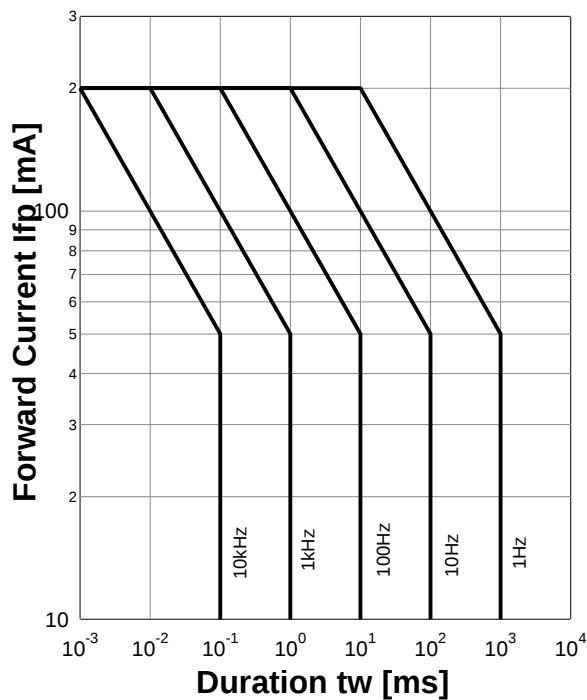
Forward Current - Forward Voltage



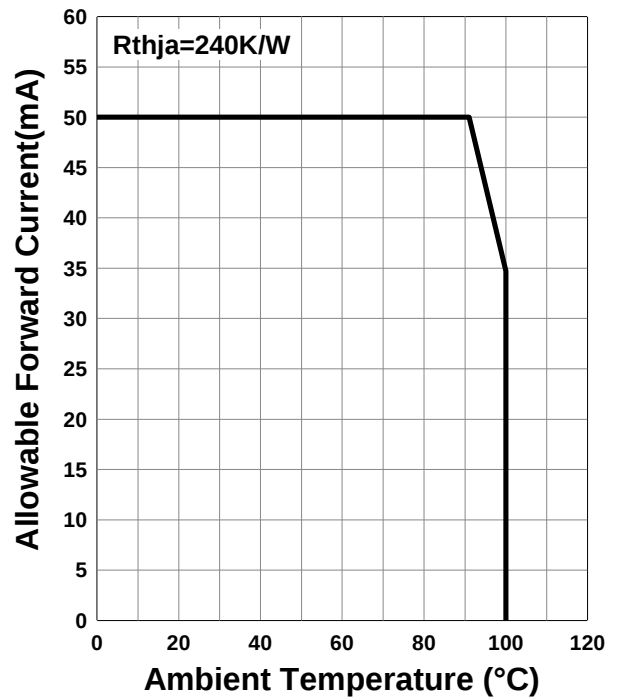
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

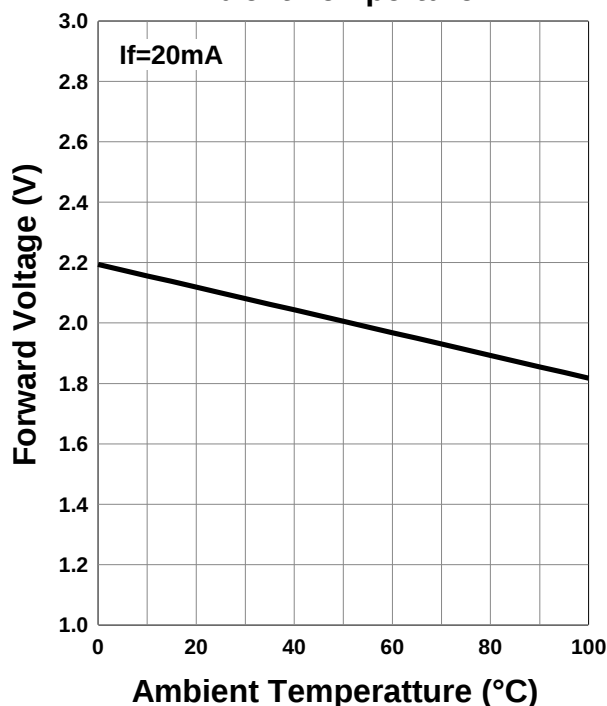


Allowable Forward Current - Ambient Temperature

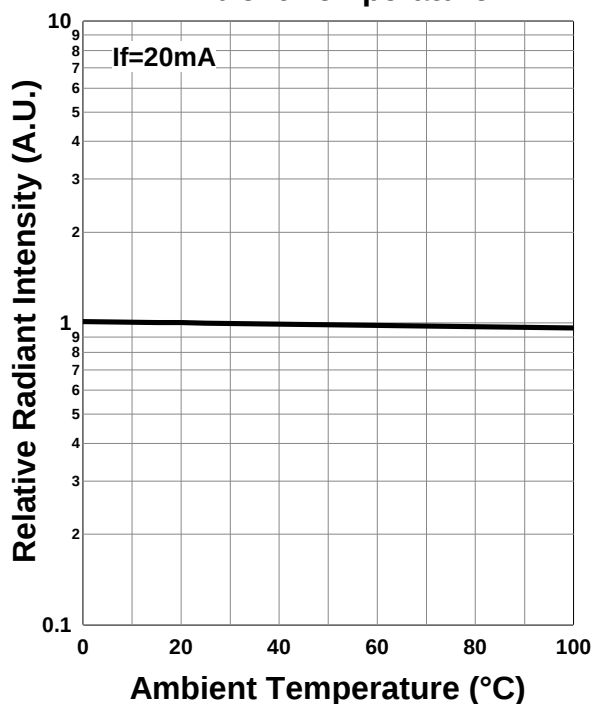


◆660nm

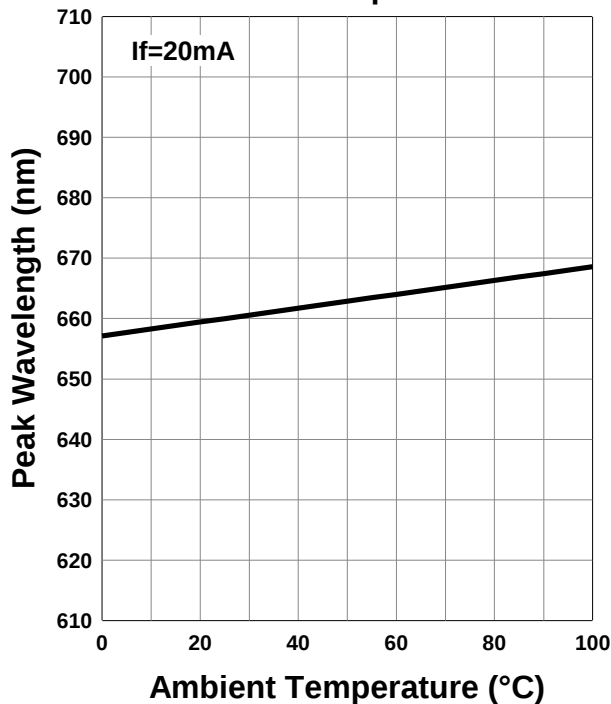
**Forward Voltage -
Ambient Temperature**



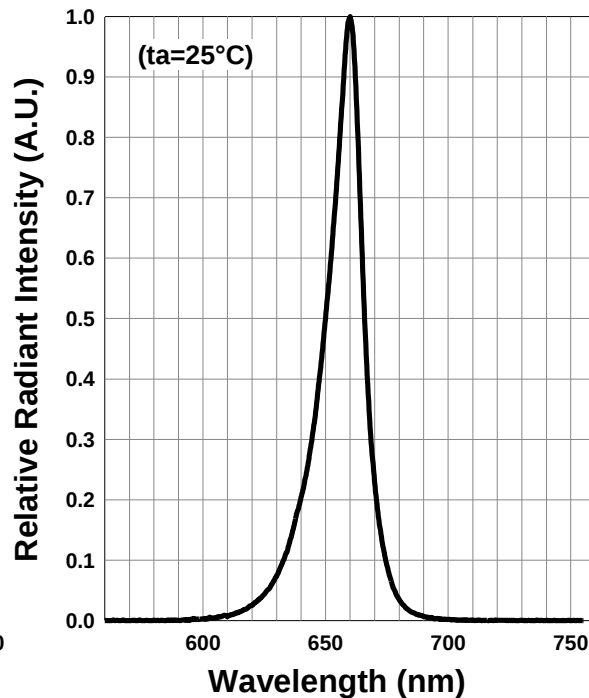
**Relative Radiant Intensity -
Ambient Temperature**



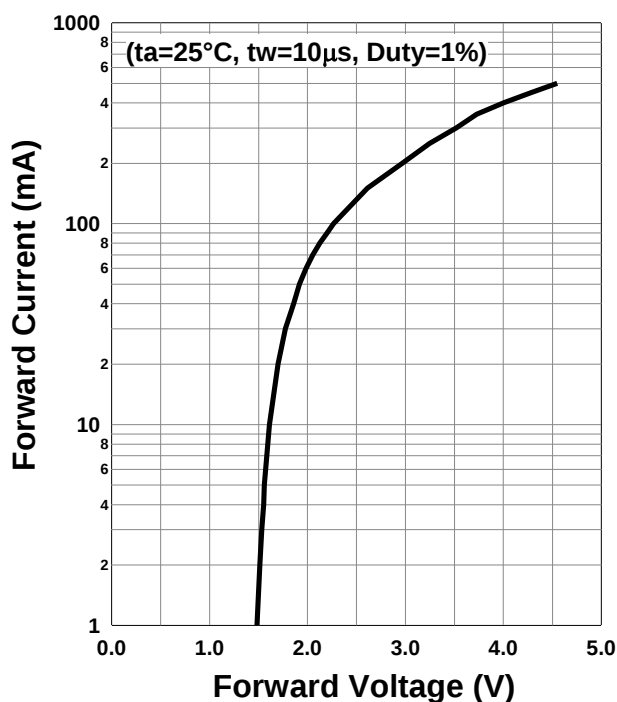
**Peak Wavelength -
Ambient Temperature**



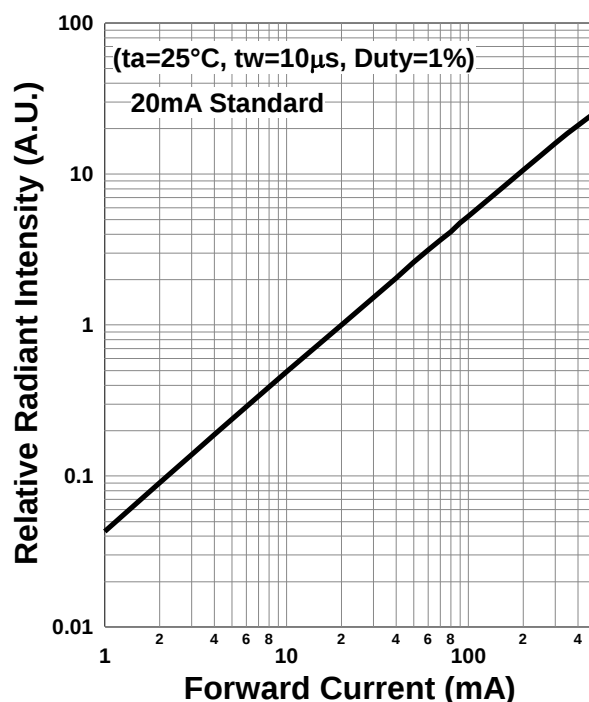
Relative Spectral Emission



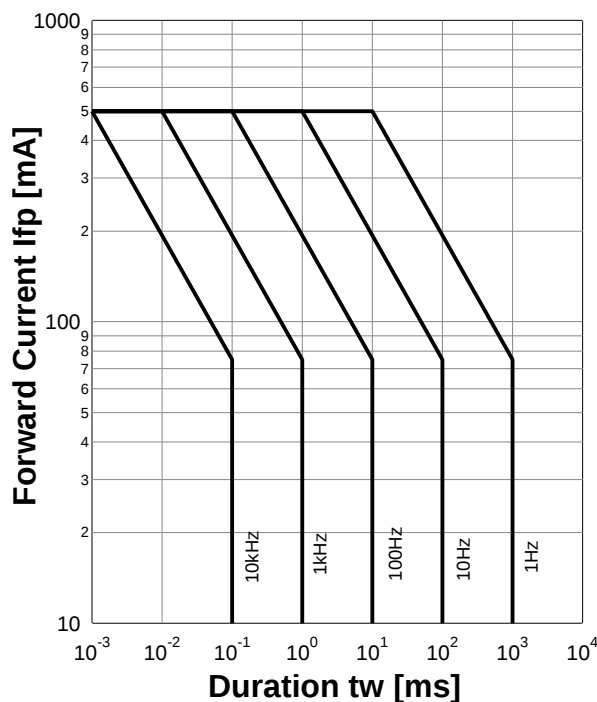
Forward Current - Forward Voltage



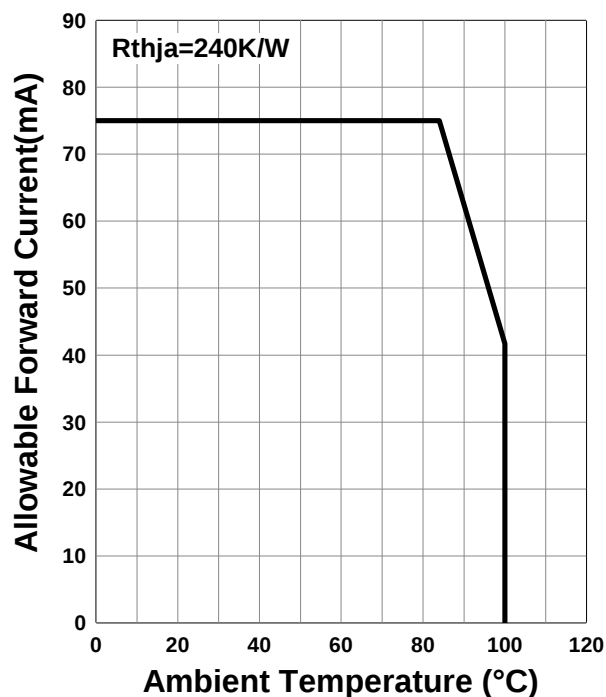
Relative Radiant Intensity - Forward Current



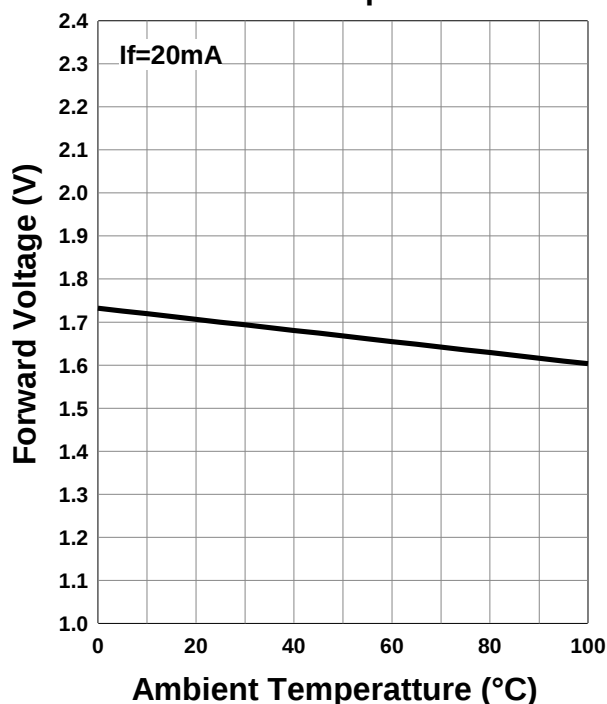
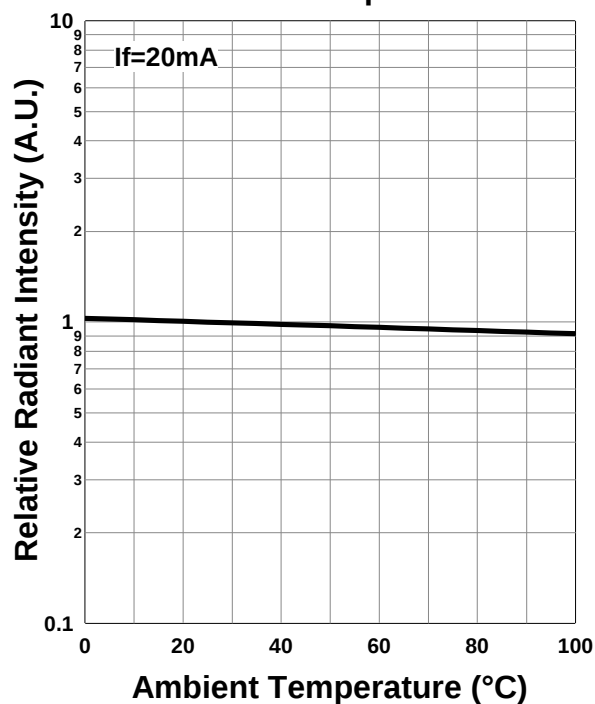
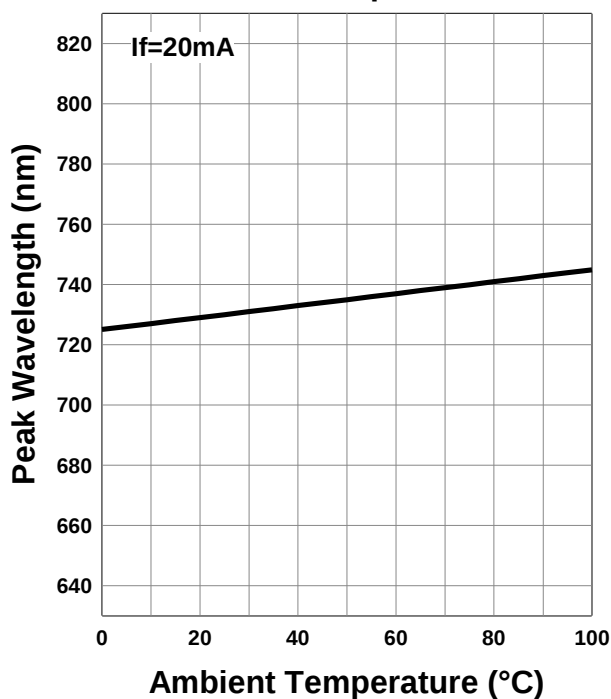
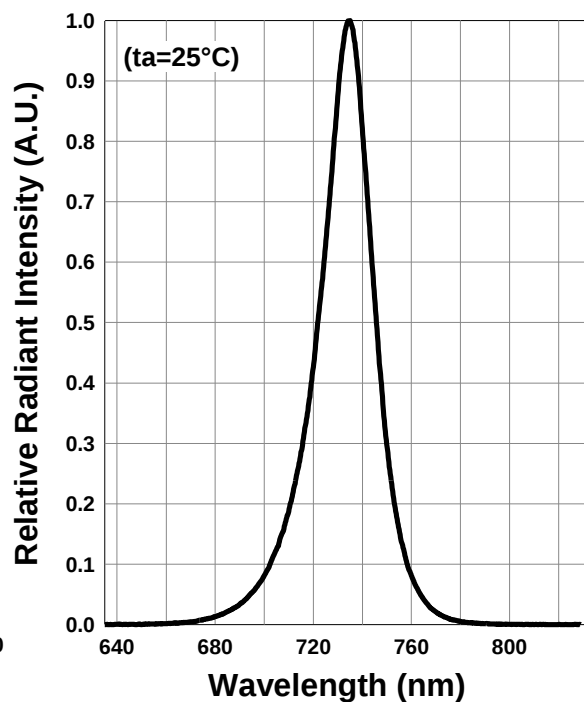
Forward Current - Pulse Duration



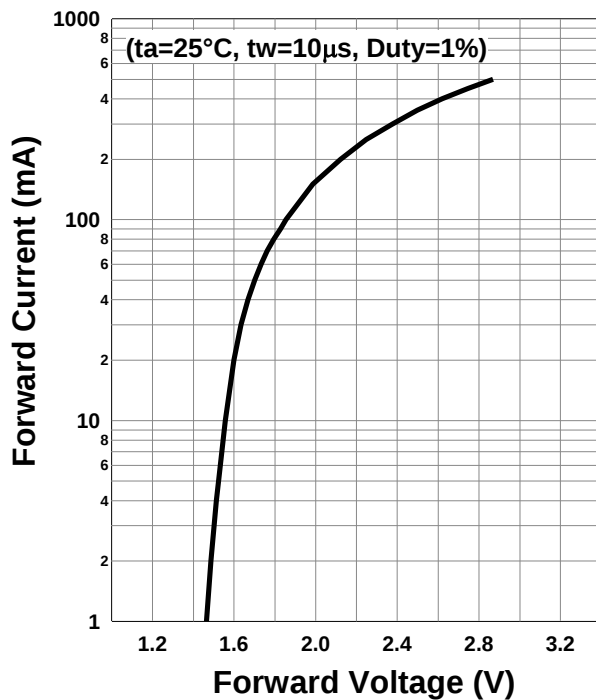
Allowable Forward Current - Ambient Temperature



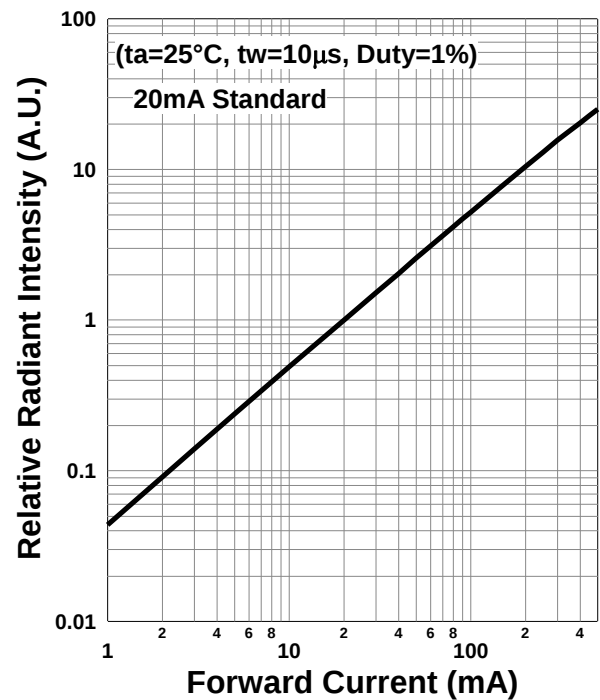
◆ 730nm

**Forward Voltage -
Ambient Temperature****Relative Radiant Intensity -
Ambient Temperature****Peak Wavelength -
Ambient Temperature****Relative Spectral Emission**

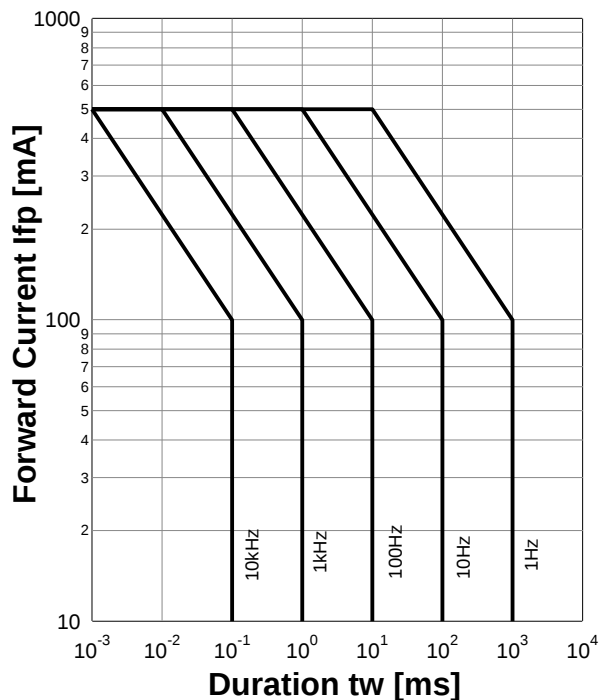
Forward Current - Forward Voltage



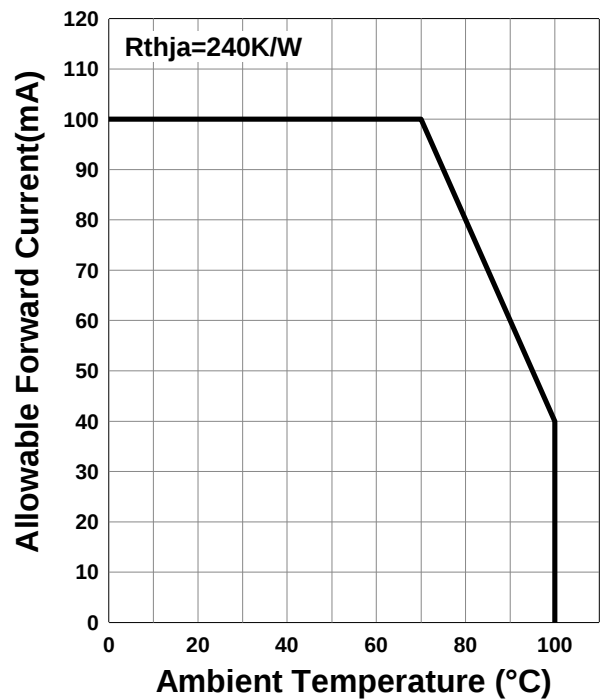
Relative Radiant Intensity - Forward Current



Forward Current - Pulse Duration

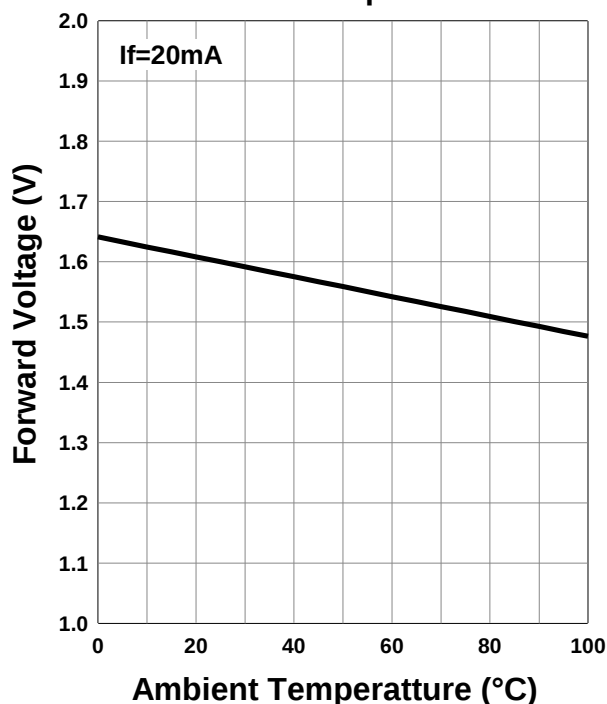


Allowable Forward Current - Ambient Temperature

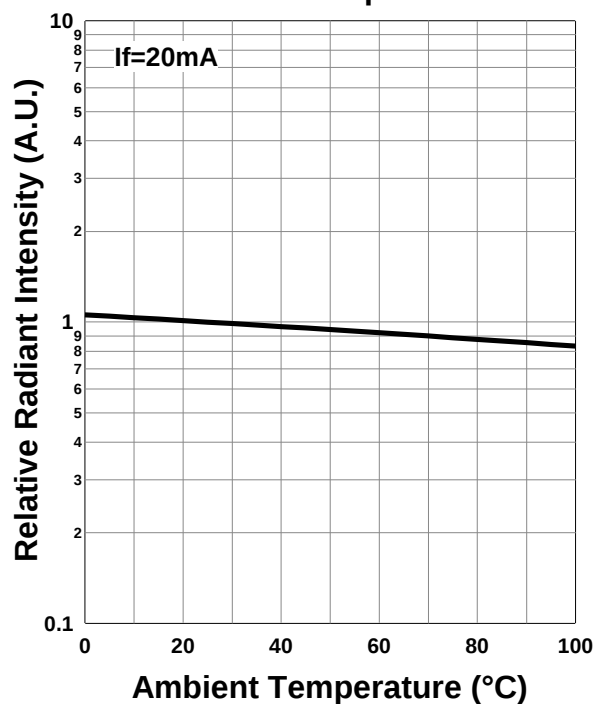


◆ 805nm

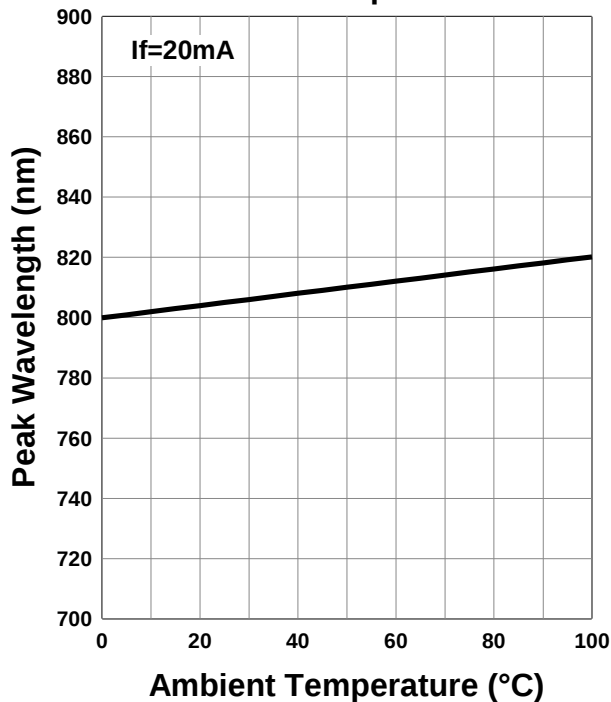
**Forward Voltage -
Ambient Temperature**



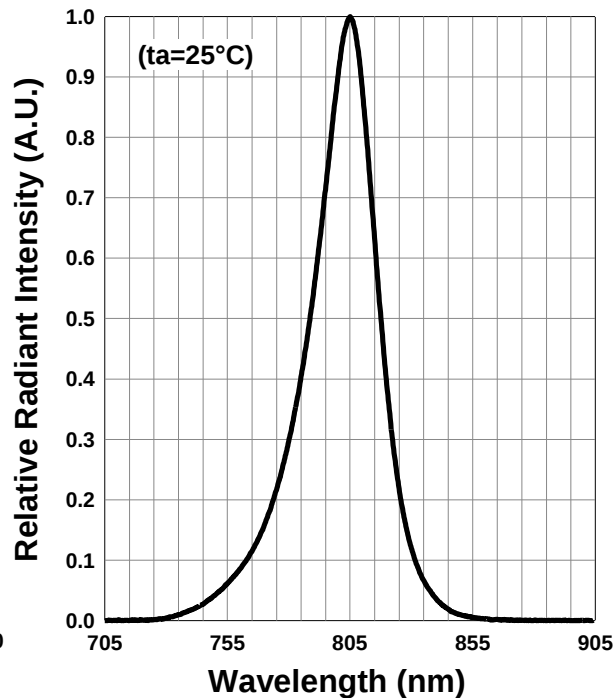
**Relative Radiant Intensity -
Ambient Temperature**



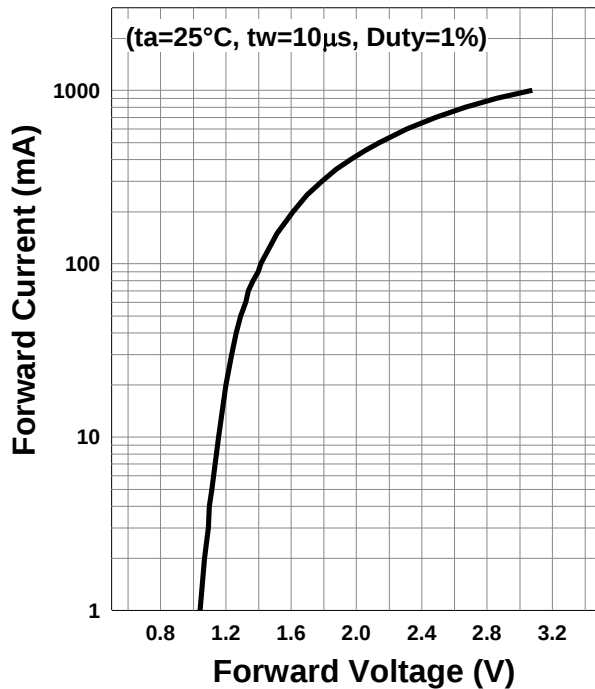
**Peak Wavelength -
Ambient Temperature**



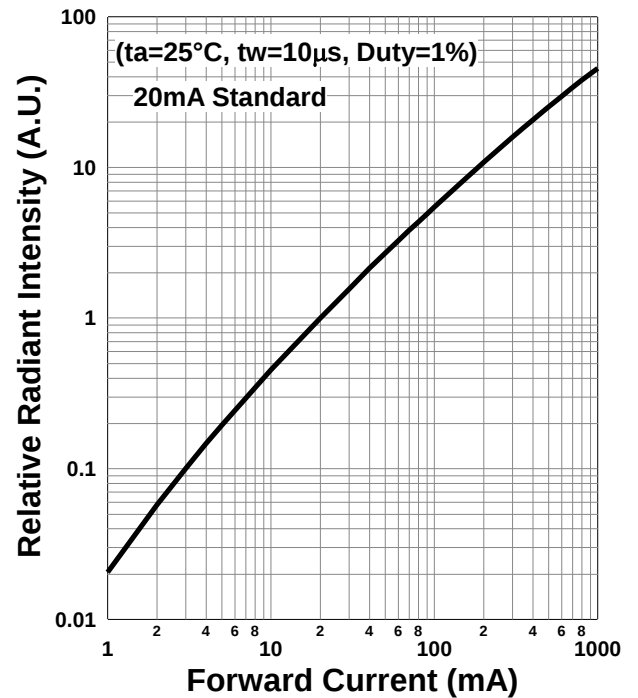
Relative Spectral Emission



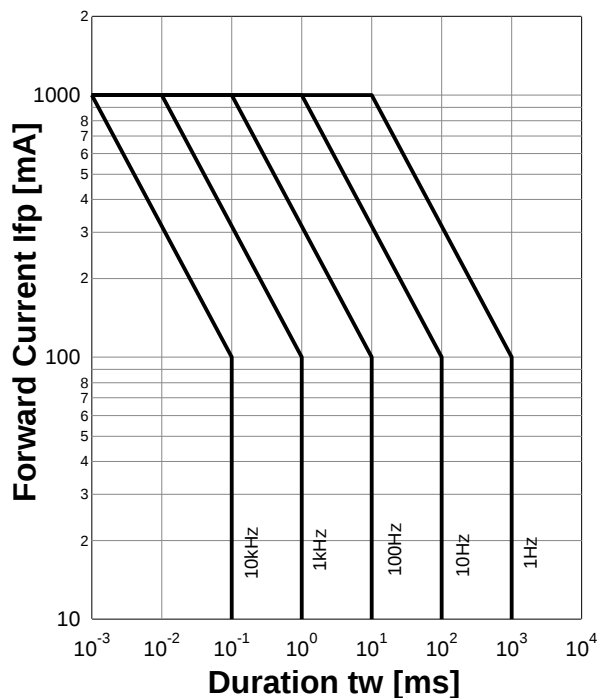
Forward Current - Forward Voltage



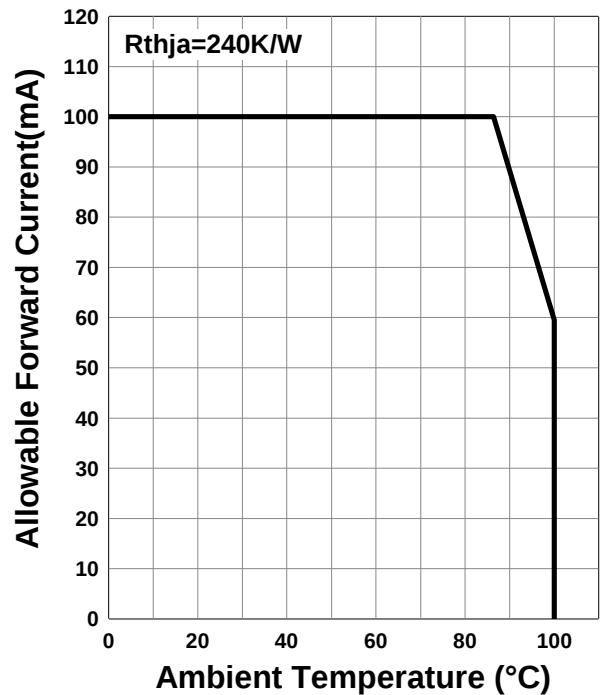
Relative Radiant Intensity - Forward Current



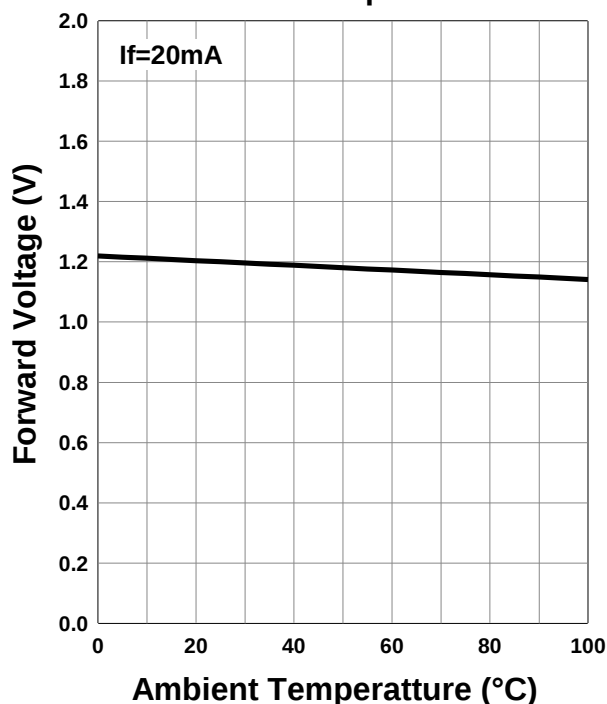
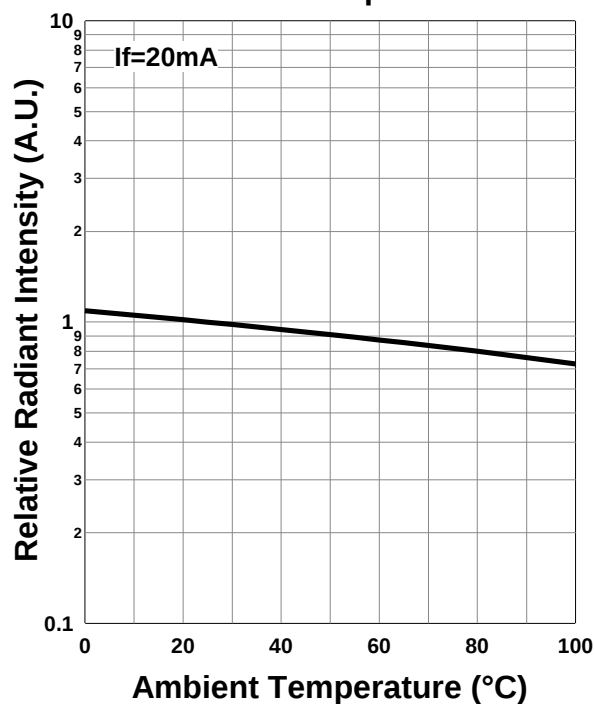
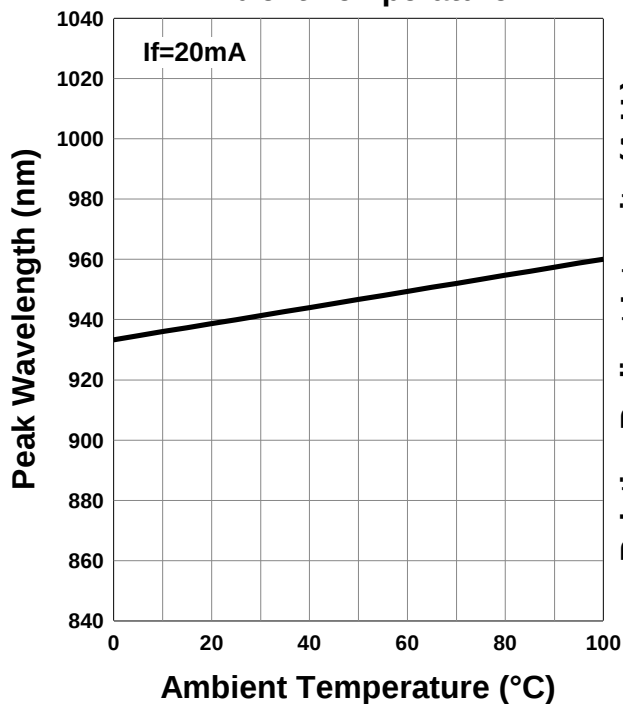
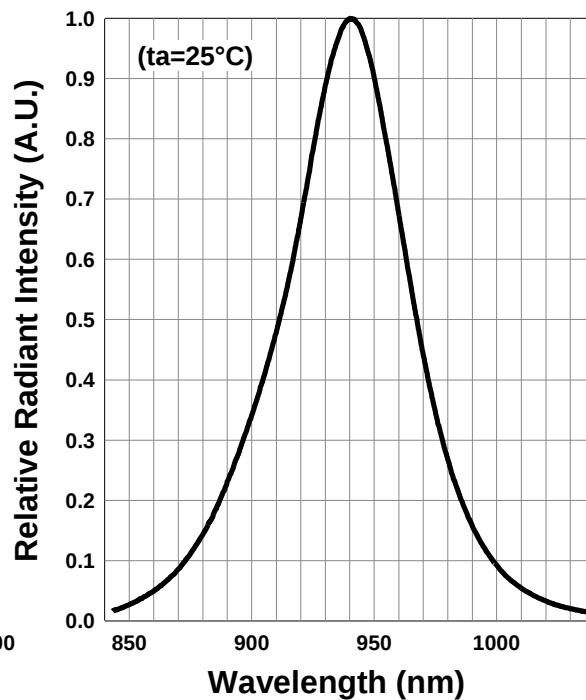
Forward Current - Pulse Duration



Allowable Forward Current - Ambient Temperature



◆ 940nm

**Forward Voltage -
Ambient Temperature****Relative Radiant Intensity -
Ambient Temperature****Peak Wavelength -
Ambient Temperature****Relative Spectral Emission**



Disclaimer

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