

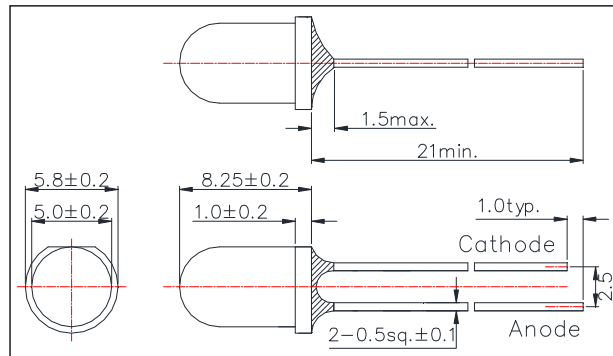
**L1650S-03**  
Infrared LED Lamp

PRELIMINARY

<Specifications>

- Chip Material: InGaAsP
- Chip Dimension: 300um x 300um
- Number of Chips: 1pcs
- Peak Wavelength: 1650nm typ.
- Package Type: Φ5mm Clear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: Epoxy Resin

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Value	Unit
Power Dissipation	PD	130	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	1000	mA
Reverse Voltage	VR	3	V
Thermal Resistance	Rthja	250	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	TOPR	-40 ~ +85	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature*	TSOL	265	°C

\* Duty=1% and Pulse Width=10μs

\*\* Soldering condition must be completed within 3 second at 265 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		0.9	1.3	V
	VFP	IFP=1A		1.7		
Total Radiated Power*	PO	IF=50mA		2.3		mW
		IFP=1A		12		
Radiant Intensity**	IE	IF=50mA		37		mW/sr
		IFP=1A		190		
Peak Wavelength	λP	IF=50mA	1600		1700	nm
Half Width	Δλ	IF=50mA		120		nm
Viewing half Angle	θ1/2	IF=50mA		±12		deg
Rise Time	tr	IF=50mA		30		ns
Fall Time	tf	IF=50mA		70		ns

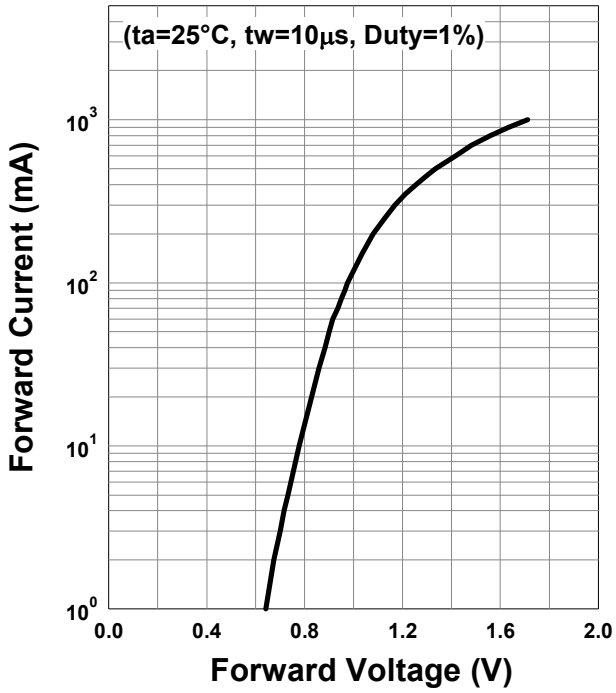
\* Measured by G8370-85

\*\* Measured by Ando Optical Mutil Meter AQ2140 & AQ2742

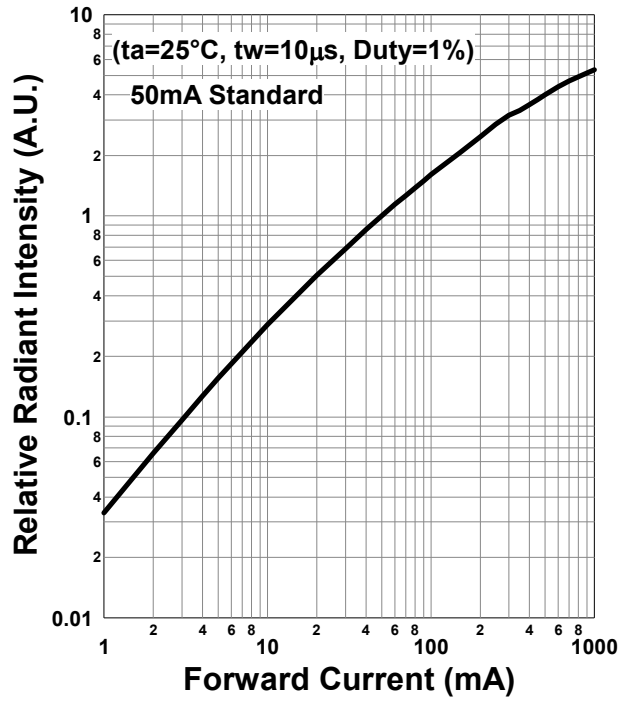


Typical Characteristic Curves

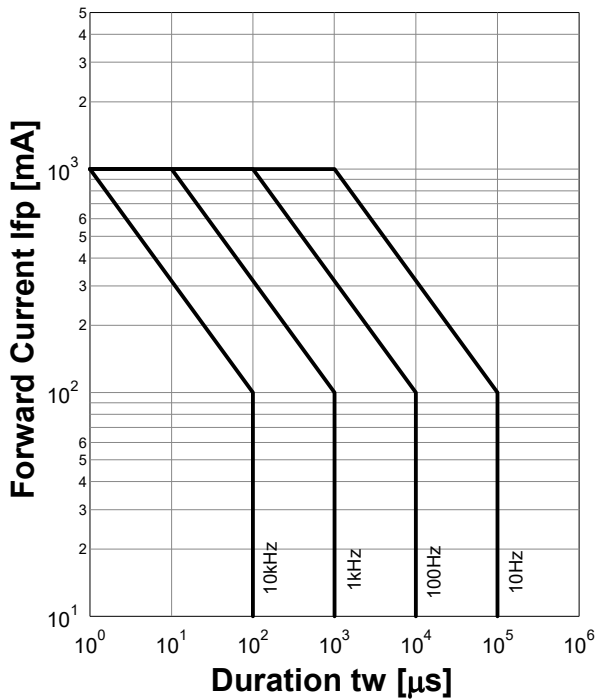
Forward Current - Forward Voltage



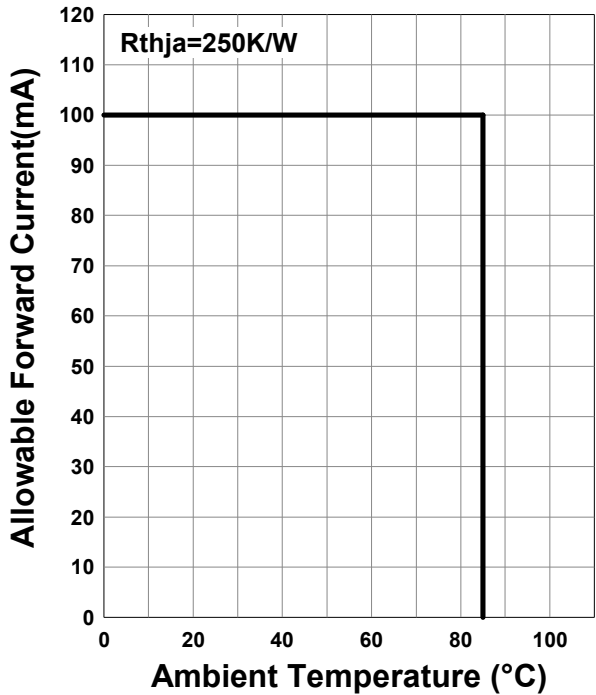
Relative Radiant Intensity - Forward Current



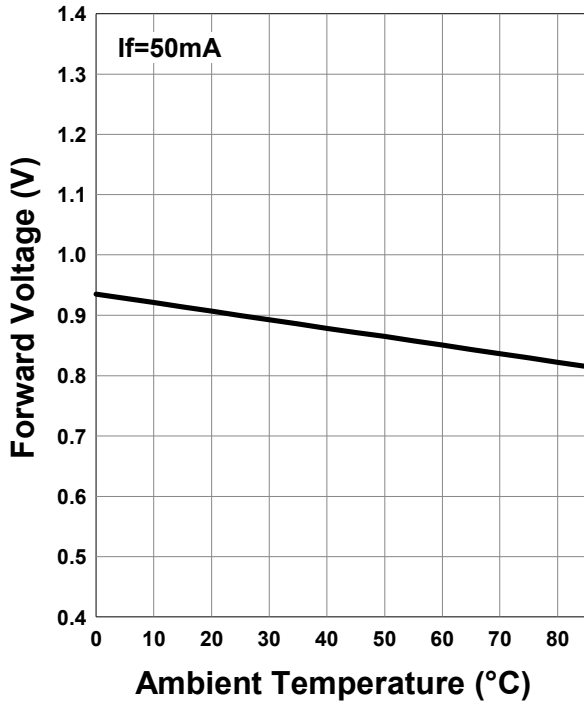
Forward Current - Pulse Duration



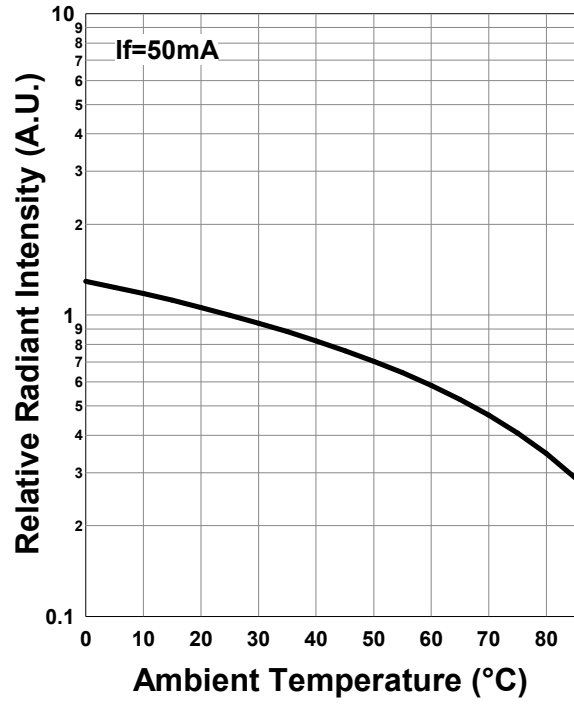
Allowable Forward Current - Ambient Temperature



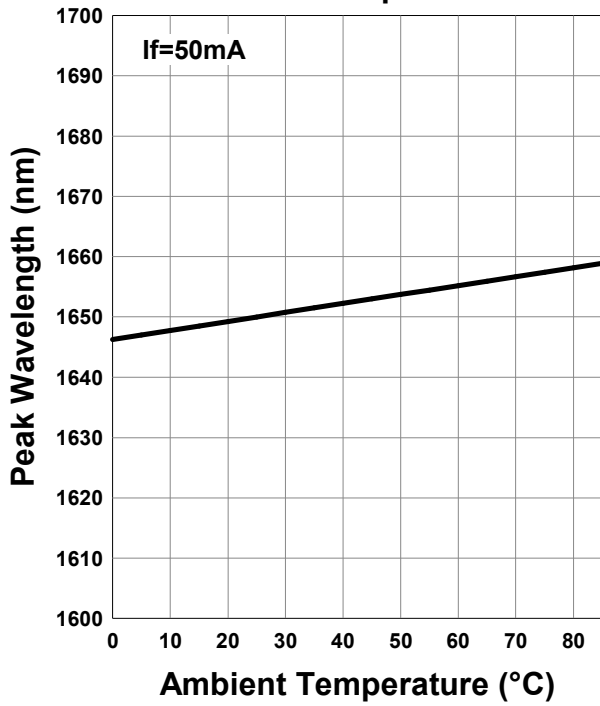
Forward Voltage - Ambient Temperature



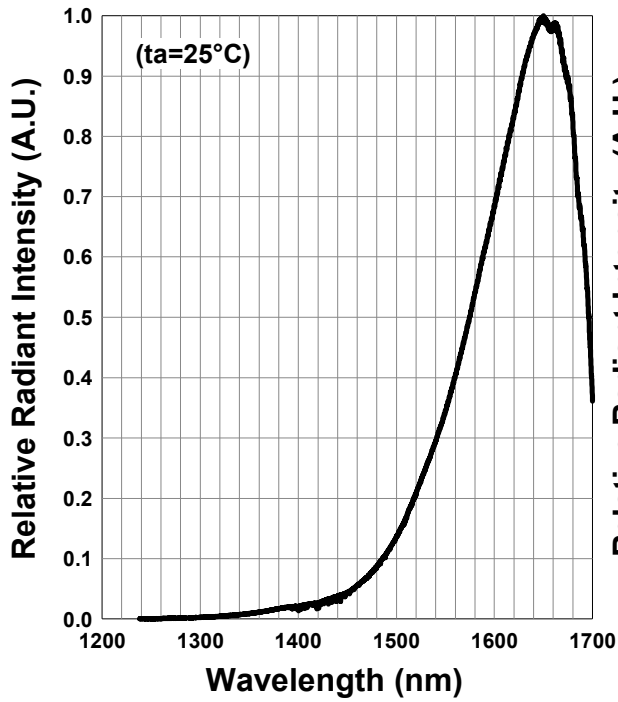
Relative Radiant Intensity - Ambient Temperature



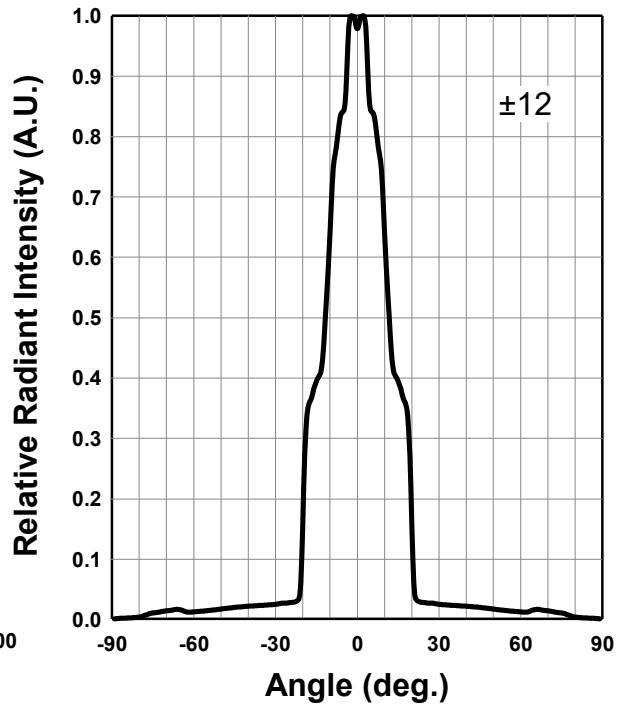
Peak Wavelength - Ambient Temperature



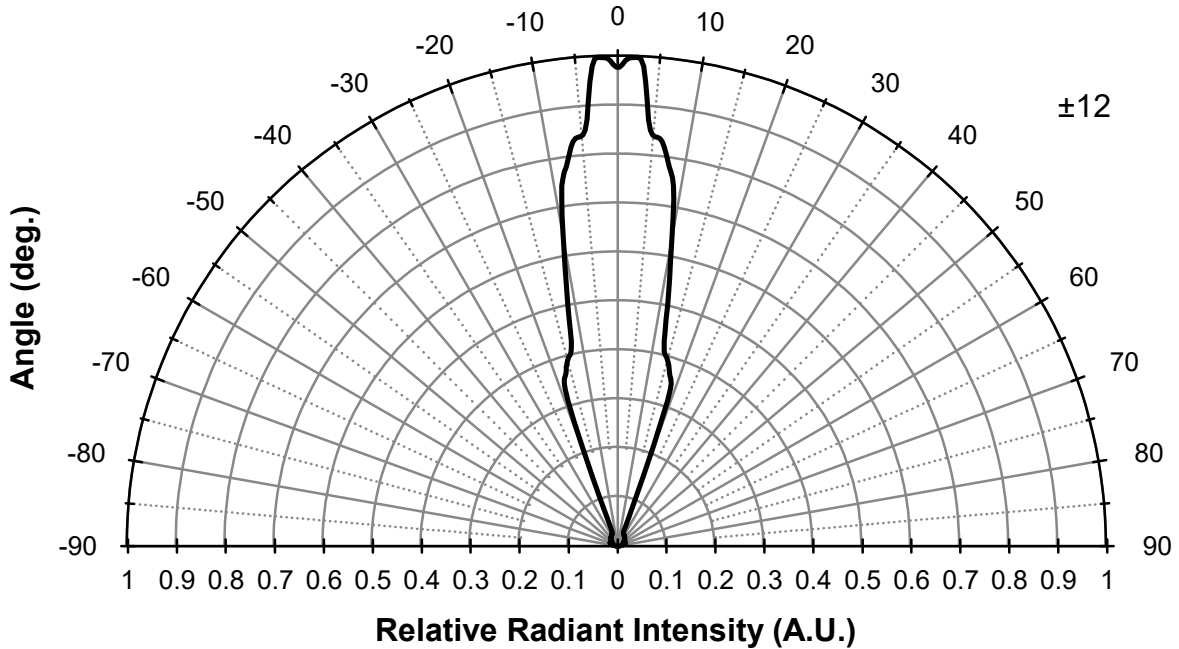
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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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.

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