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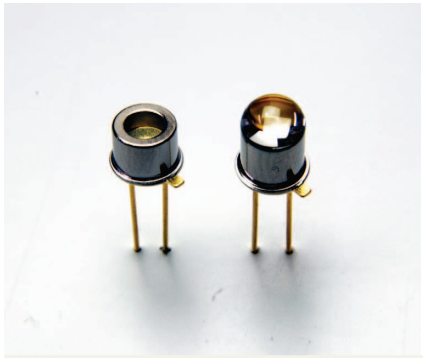
Infrared LED



L10660 series

Peak emission wavelength: 1.45 µm

The L10660 series is a high-power LED that emits infrared light at a peak wavelength of 1.45 µm. The LED is suitable for applications requiring use of infrared emitters with InGaAs photodiode.

Features

- **Peak emission wavelength: 1.45 µm**
- **High radiant output power**

Applications

- **Light source for moisture meter**
- **Light source for foreign object screening**

Absolute maximum ratings (Ta=25 °C, unless otherwise noted)

Parameter	Symbol	Condition	Value	Unit
Reverse voltage	V_R		1	V
Forward current	I_F		80	mA
Forward current decrease rate	-	Ta > 25 °C	1.1	mA/°C
Pulse forward current	I_{FP}	Pulse width=10 µs Duty ratio=1%	1.0	A
Pulse forward current decrease rate	-	Ta > 25 °C	13	mA/°C
Power dissipation	P		150	mW
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-40 to +100	°C

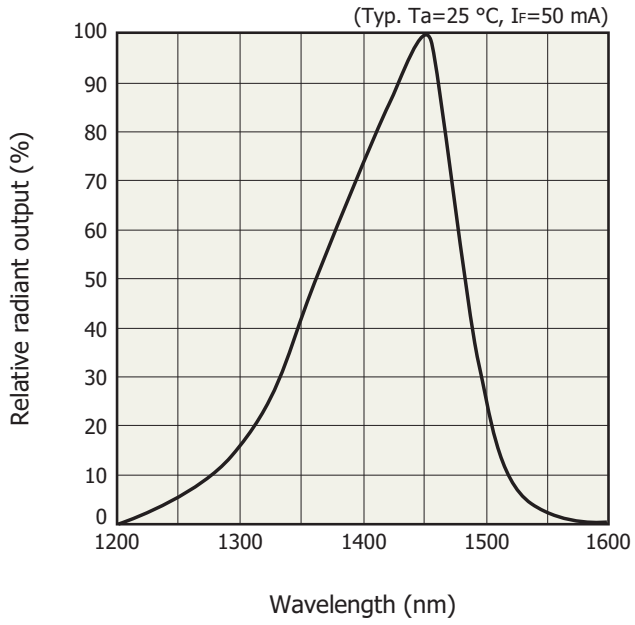
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	L10660			L10660-01			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λp	I_F=50 mA	1.4	1.45	1.5	1.4	1.45	1.5	µm
Spectral half width (FWHM)	Δλ	I_F=50 mA	-	120	170	-	120	170	nm
Radiant flux	ϕe	I_F=50 mA	1.8	2.4	-	2.0	2.8	-	mW
Forward voltage	V_F	I_F=50 mA	-	1.0	1.5	-	1.0	1.5	V
Reverse current	I_R	V_R=1 V	-	-	10	-	-	10	µA
Cut-off frequency *	fc	I_F=50 mA ± 10 mAp-p	10	15	-	10	15	-	MHz

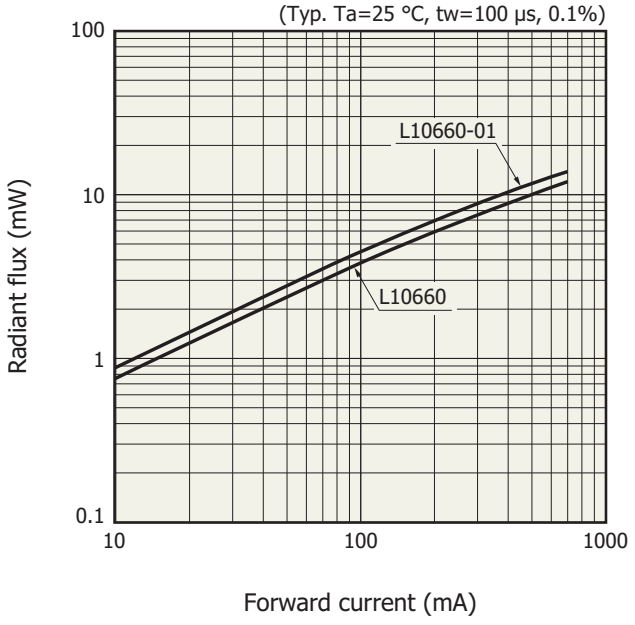
* Frequency at which the light output drops by -3 dB based on light output at 100 kHz.

Emission spectrum



KLEDB0311EB

Radiant flux vs. forward current



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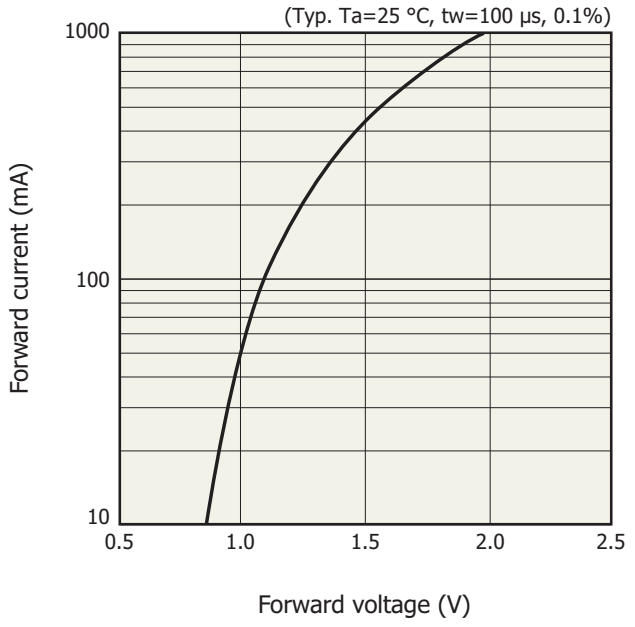
Forward current vs. forward voltage



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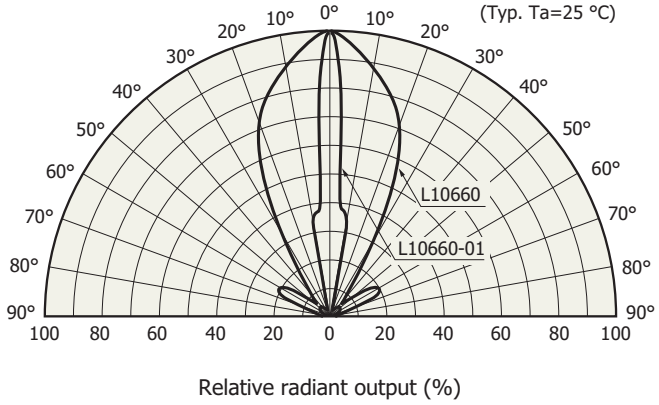
Directivity



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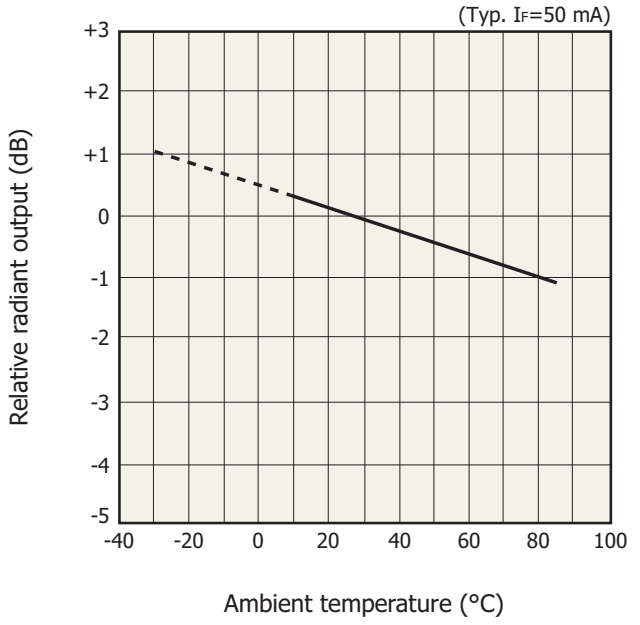
Radiant output vs. ambient temperature



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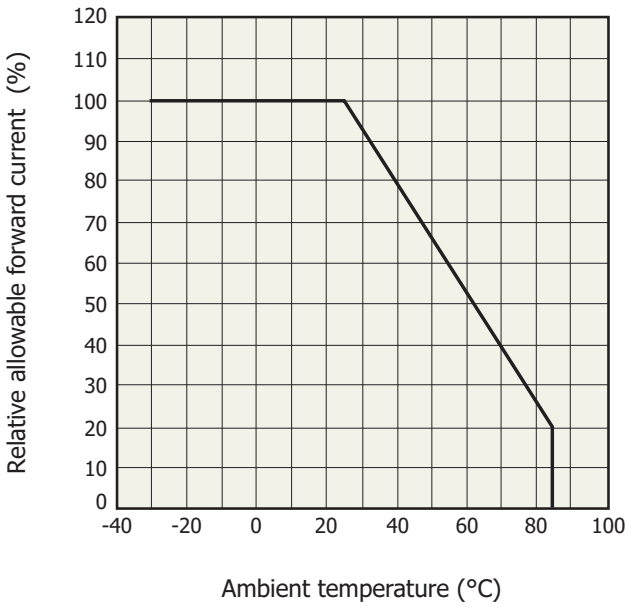
Allowable forward current vs. ambient temperature



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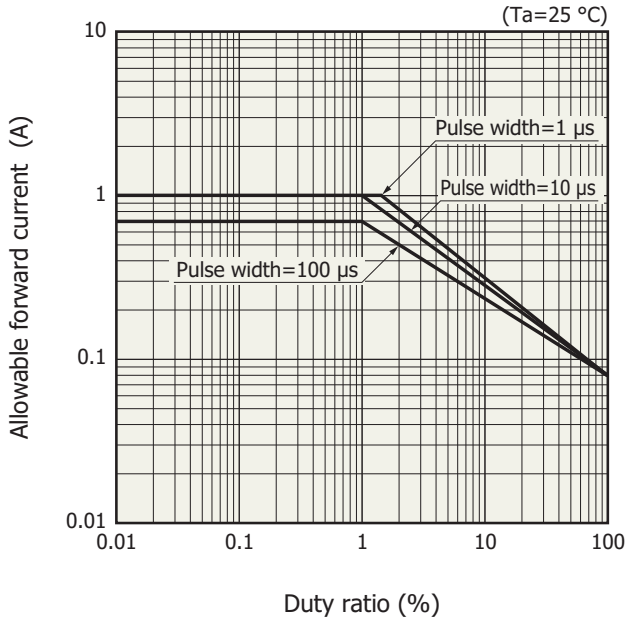
Allowable forward current vs. duty ratio



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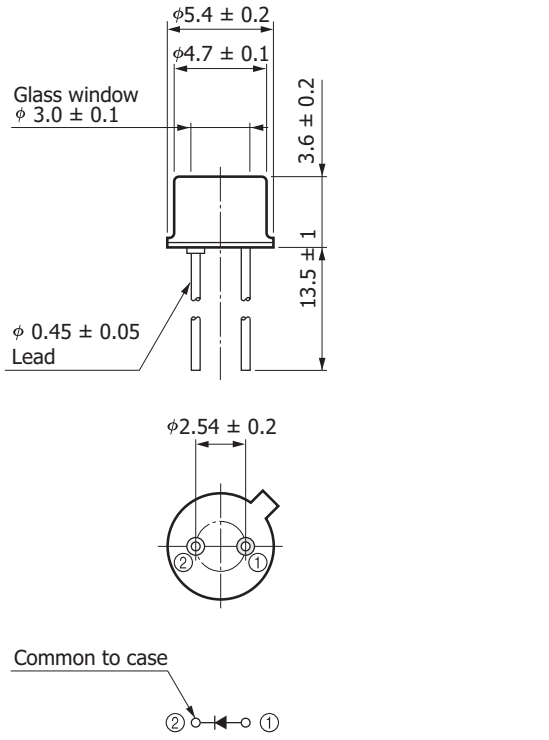
Dimensional outlines (unit: mm)

L10660



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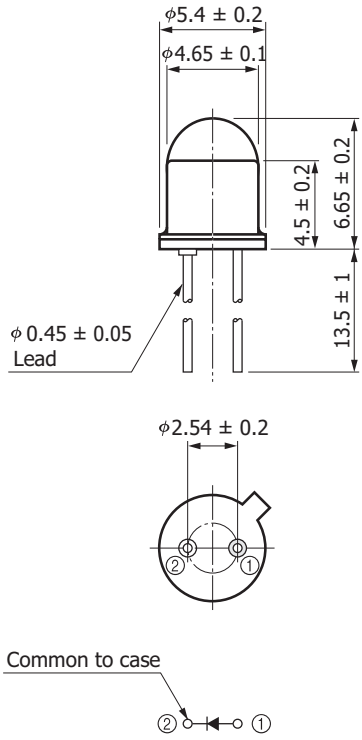
L10660-01



KLEDA0091EA

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions

· Disclaimer
· Metal, ceramic, plastic products

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