

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	VR		1	V
Forward current	IF		80	mA
Forward current decrease rate	-	Ta > 25 °C	1.1	mA/°C
Pulse forward current	IFP	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	No dew condensation*1	-30 to +85	°C
Storage temperature	Tstg	No dew condensation*1	-40 to +100	°C

*1: When there is a temperature difference between a product and the surrounding area in high humidity environments, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.

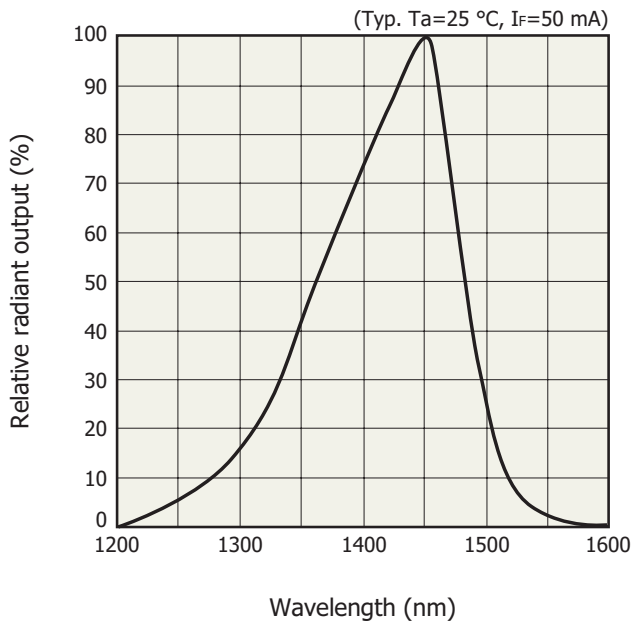
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	L10660			L10660-01			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λ_p	IF=50 mA	1.4	1.45	1.5	1.4	1.45	1.5	μm
Spectral half width (FWHM)	$\Delta\lambda$	IF=50 mA	-	120	170	-	120	170	nm
Radiant flux	ϕ_e	IF=50 mA	1.8	2.4	-	2.0	2.8	-	mW
Forward voltage	VF	IF=50 mA	-	1.0	1.5	-	1.0	1.5	V
Reverse current	IR	VR=1 V	-	-	10	-	-	10	μA
Cut-off frequency*2	fc	IF=50 mA \pm 10 mAp-p	10	15	-	10	15	-	MHz

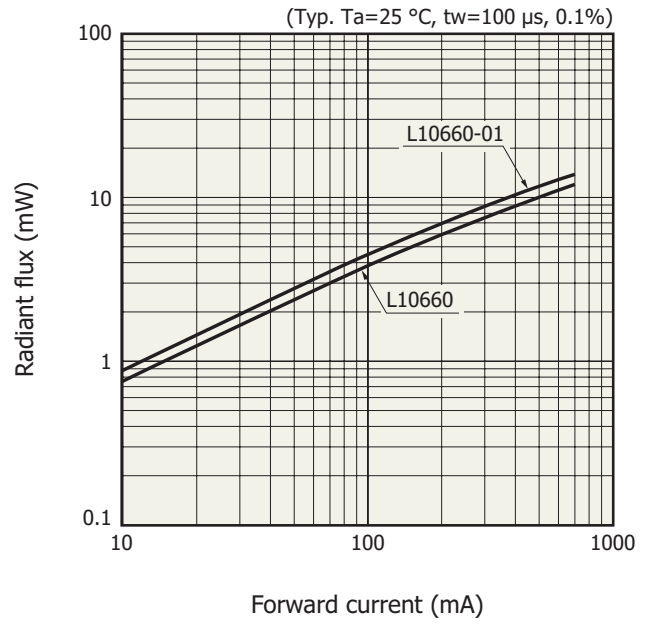
*2: Frequency at which the light output drops by -3 dB based on light output at 100 kHz.

Emission spectrum



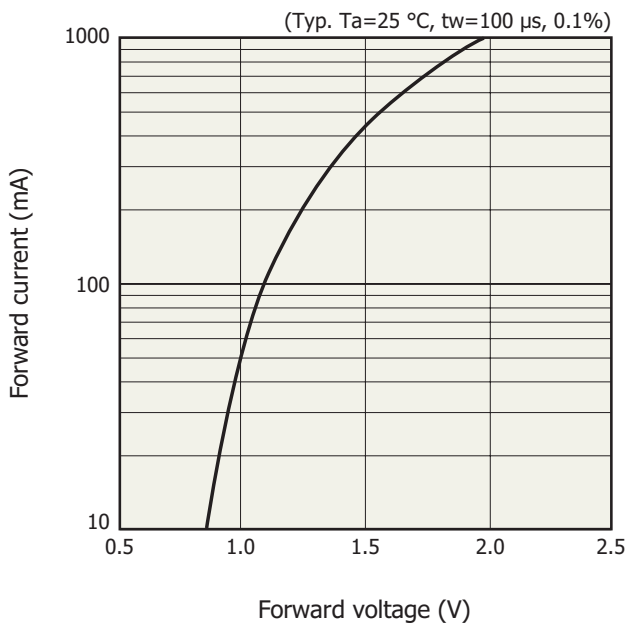
KLEDB0311EB

Radiant flux vs. forward current



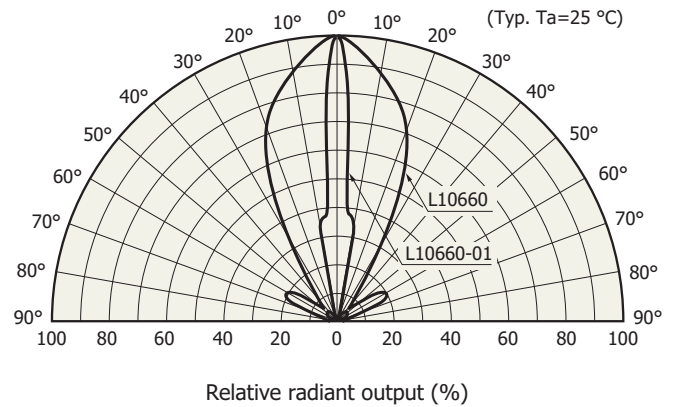
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Forward current vs. forward voltage



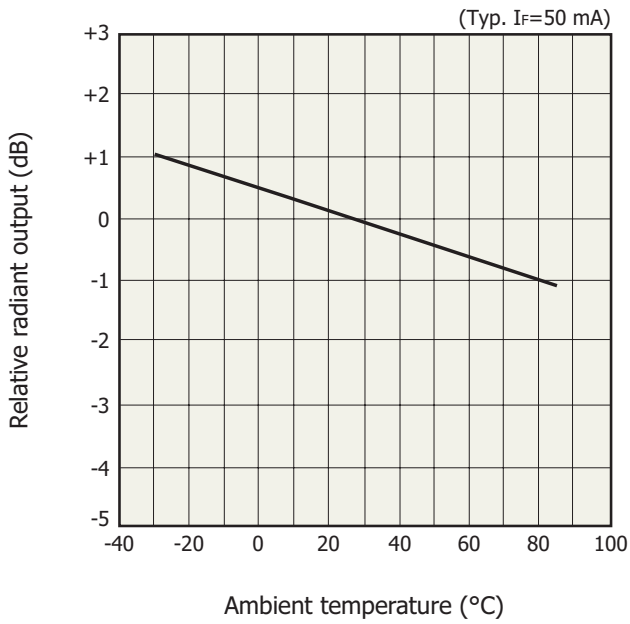
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Directivity

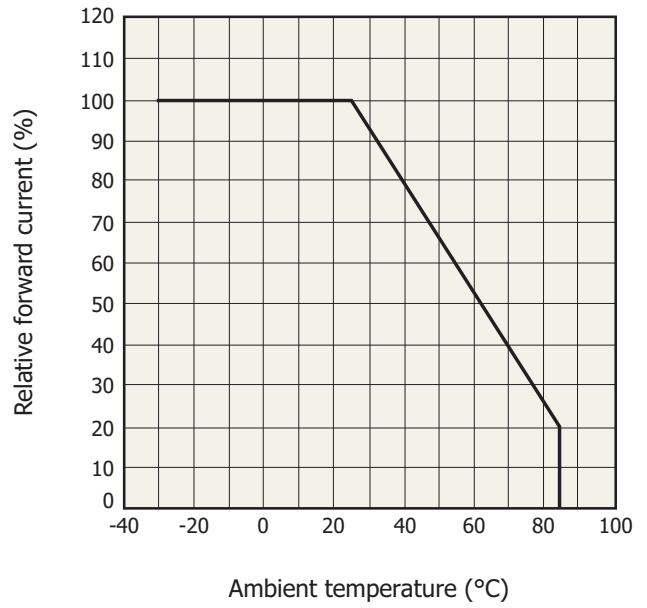


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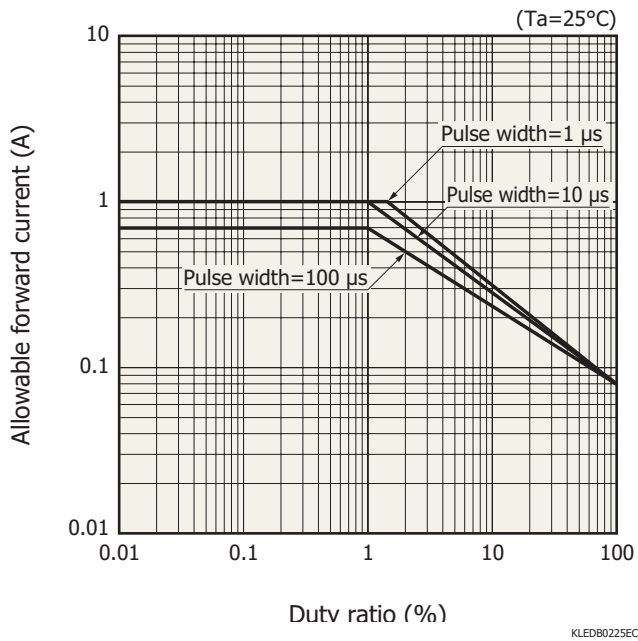
❑ Radiant output vs. ambient temperature



❑ Allowable forward current vs. ambient temperature

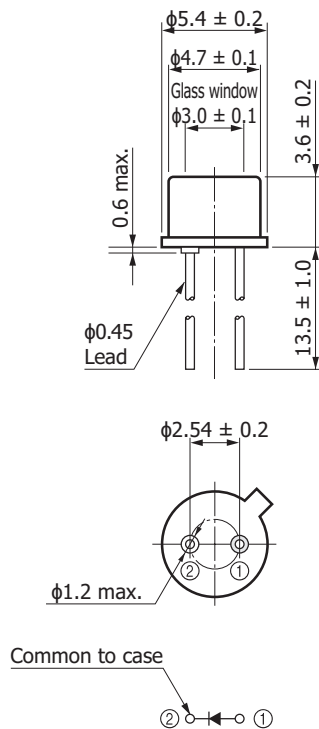


❑ Allowable forward current vs. duty ratio



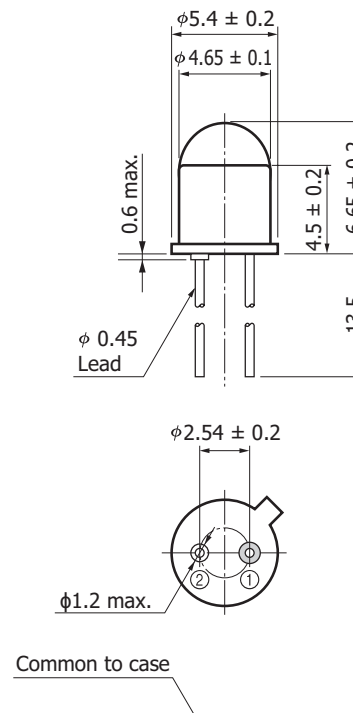
Dimensional outlines (unit: mm)

L10660



KLEDA0103EB

L10660-01



KLEDA0092EB

Related information

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

Precautions

- Disclaimer
- Safety consideration
- Compound opto-semiconductors (photosensors, light emitters)

Technical note

- LED

Information described in this material is current as of September 2022.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

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