



High output red LED

Features

- High reliability
- High radiant output power

Applications

- Optical switches, etc.

Absolute maximum ratings (Ta=25 °C)

Type no.	Forward current IF (mA)	Reverse voltage VR (V)	Pulse forward current*1 IFP (A)	Operating temperature*2 Topr (°C)	Storage temperature*2,3 Tstg (°C)
L6108	70	5	0.6	-30 to +85	-40 to +100
L6112					
L6112-01					
L6112-02					

*1: Pulse width=10 μs, duty ratio=1 %

*2: No dew condensation. 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.

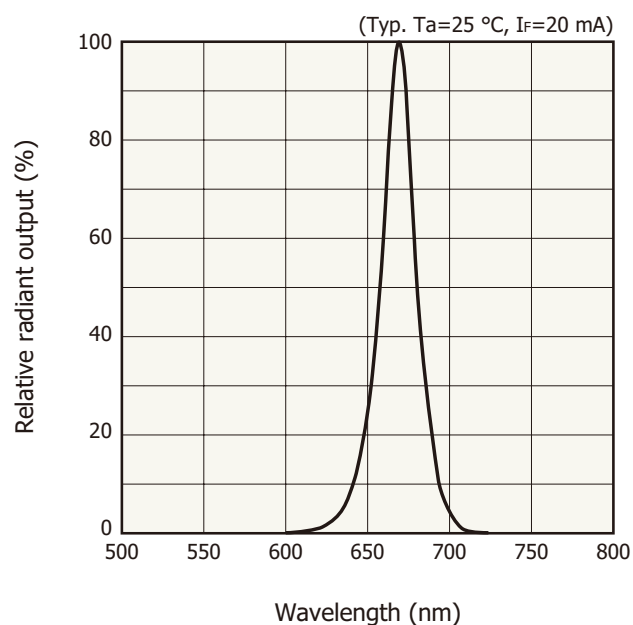
*3: Guaranteed to resist temperature cycle test of up to 5 cycles

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.

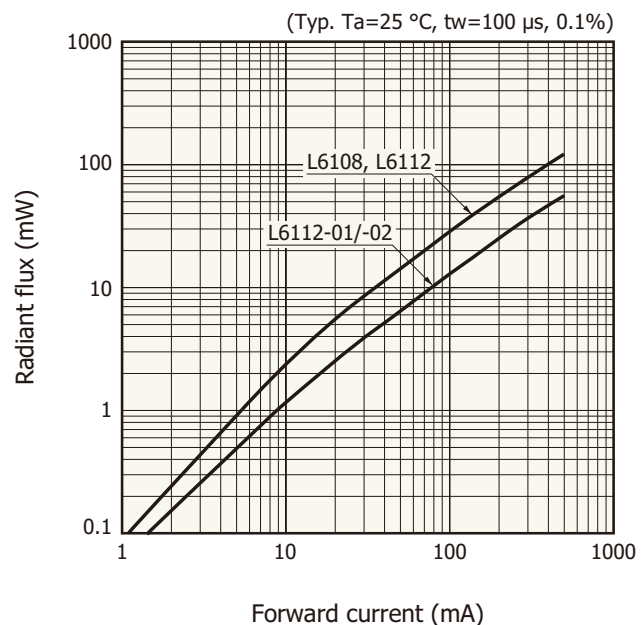
Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted)

Type no.	Peak emission wavelength λp IF=20 mA			Spectral half width Δλ IF=20 mA (nm)	Forward voltage VF IF=20 mA		Pulse forward voltage VFP IF=IFP		Radiant flux φe IF=20 mA		Radiant illuminance PE IF=50 mA (mW/cm²)	Cutoff frequency fc IF=20 mA + 1 mAp-p (MHz)
	Min. (nm)	Typ. (nm)	Max. (nm)		Typ. (V)	Max. (V)	Typ. (V)	Max. (V)	Min. (mW)	Typ. (mW)		
L6108	650	670	700	25	1.8	2.1	4.9	7.0	4.0	5.5	0.5	3.0
L6112											1.5	
L6112-01											4.0	
L6112-02									1.8	2.5	1.5	

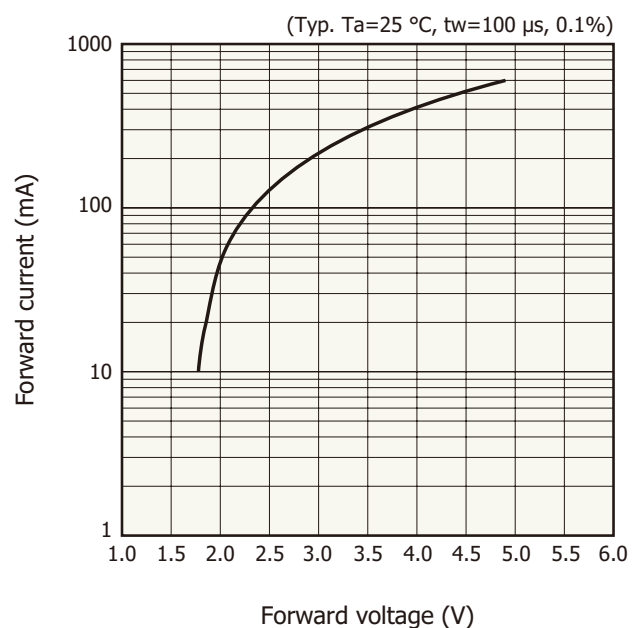
✦ Emission spectrum



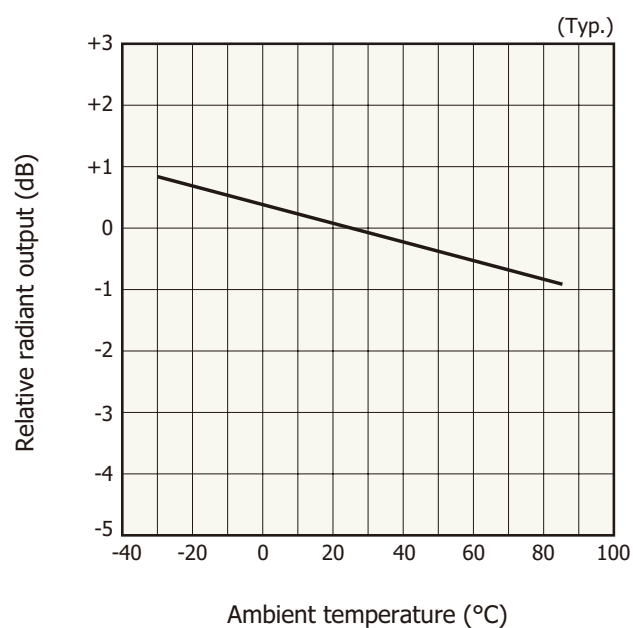
✦ Radiant flux vs. forward current



✦ Forward current vs. forward voltage

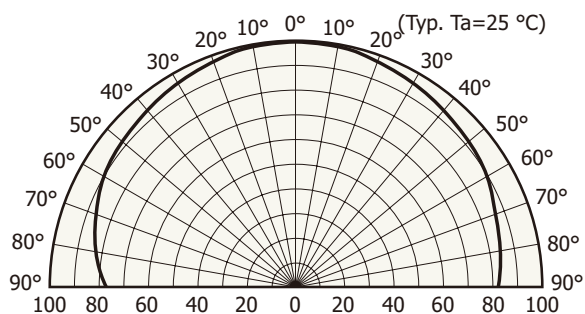


✦ Radiant output vs. ambient temperature



Directivity

L6108

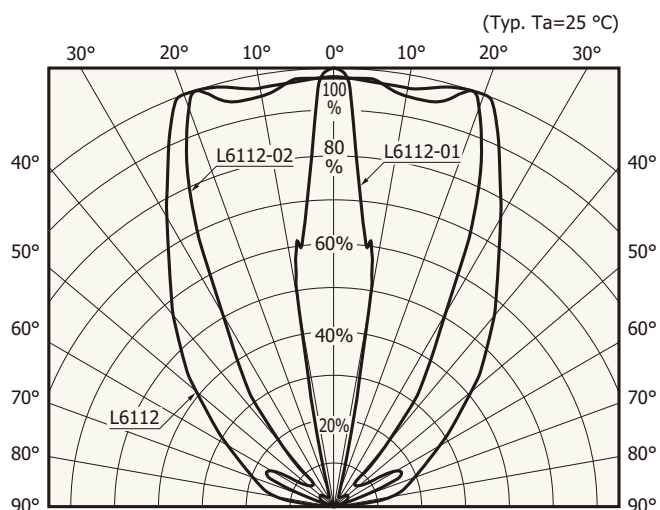


Relative radiant output (%)

Except for reflection ingredient of the base

KLED80190EA

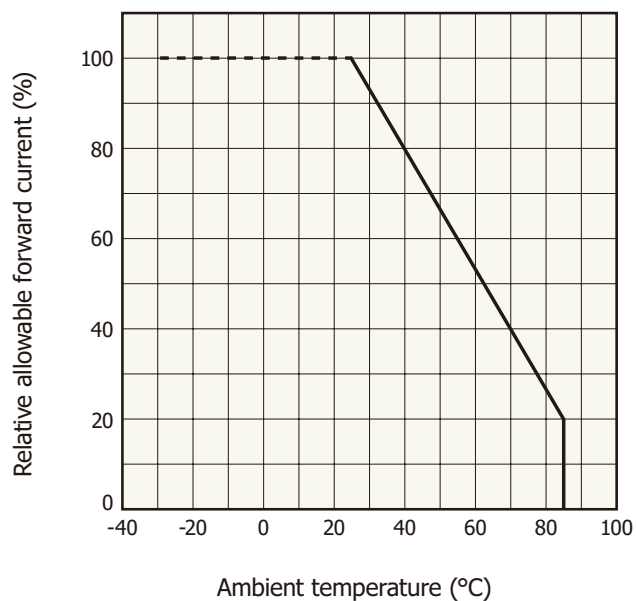
L6112 series



Relative radiant output (%)

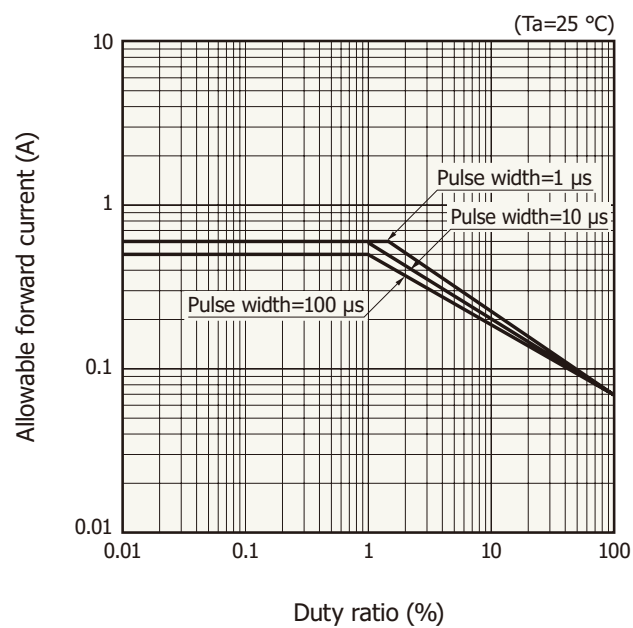
KLED80191EB

Allowable forward current vs. ambient temperature



KLED80027EC

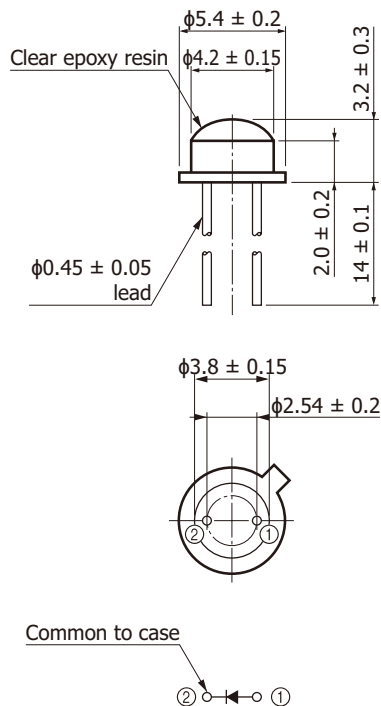
Allowable forward current vs. duty ratio



KLED80193EB

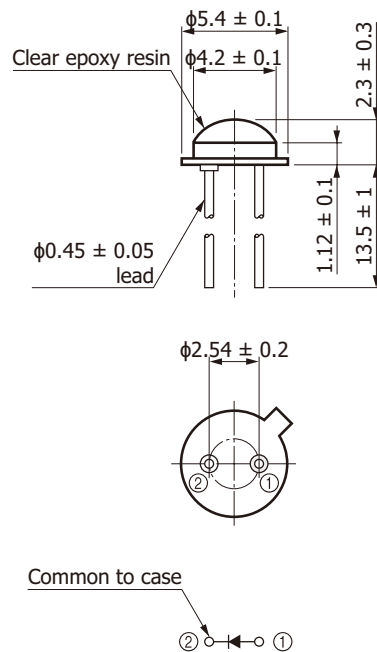
Dimensional outlines (unit: mm)

L6108



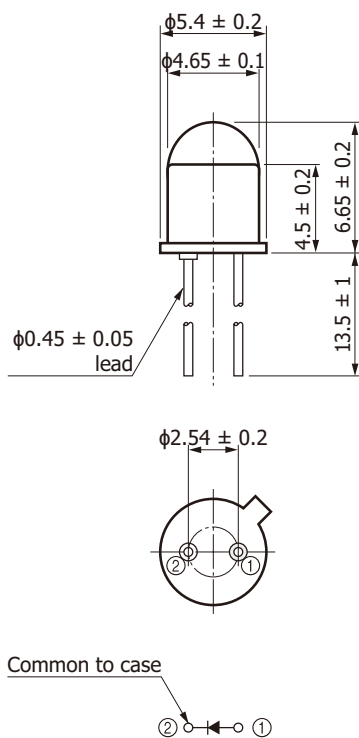
KLEDA0030ED

L6112



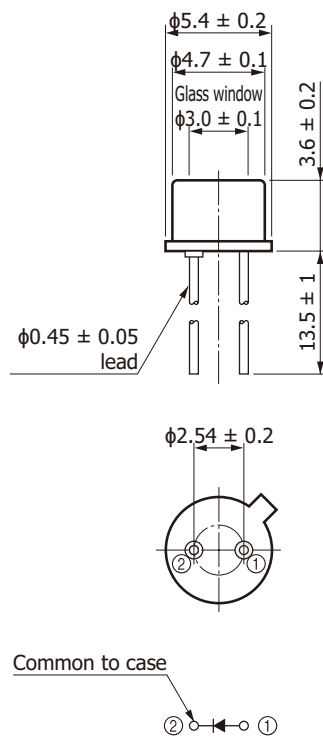
KLEDA0063EB

L6112-01



KLEDA0064EC

L6112-02



KLEDA0065EB

❖ Recommended soldering condition

Solder temperature: 260 °C, 5 s or less, once

Solder the leads at a point at least 1 mm away from the package body.

Note: When you set soldering conditions, check that problems do not occur in the product by testing out the conditions in advance.

❖ Related information

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

■ Precautions

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

■ Catalogs

- Selection guide / LED
- Technical note / LED

Information described in this material is current as of December 2025.

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