



L10363

## High-power red light emission diode

The L10363 is a red LED with a peak emission wavelength of 700 nm. The hermetic seal package provides high reliability, and the lens cap provides narrow directivity.

### Features

- ➔ High reliability
- ➔ Narrow directivity

### Applications

- ➔ Optical switches

### Structure

Parameter	Specification
Package	TO-46
Reflector	Yes
Window material	Lens type borosilicate glass

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

Parameter	Symbol	Condition	Value	Unit
Reverse voltage	VR		5	V
Forward current	IF		70	mA
Forward current decrease rate	-	Ta > 25 °C	0.9	mA/°C
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1%	0.5	A
Pulse forward current decrease rate	-	Ta > 25 °C	7	mA/°C
Power dissipation	P		160	mW
Operating temperature	Topr	No dew condensation*1	-30 to +85	°C
Storage temperature	Tstg	No dew condensation*1	-40 to +100	°C
Soldering conditions	-		260 °C or less, within 5 s, at least 1 mm away from lead roots	

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

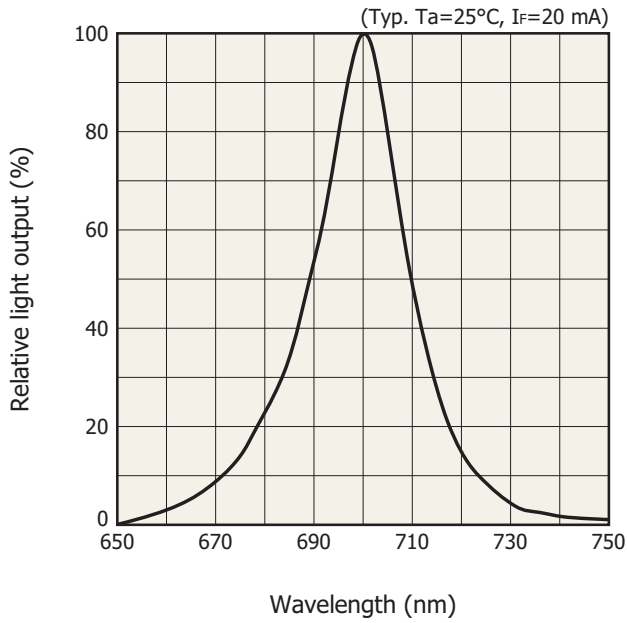
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

### Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	$\lambda_p$	IF=20 mA	685	700	715	nm
Spectral half width	$\Delta\lambda$	IF=20 mA	-	20	-	nm
Forward voltage	VF	IF=20 mA	-	1.7	2.1	V
Reverse current	IR	VR=5 V	-	-	10	μA
Radiant flux	$\phi_e$	IF=20 mA	1.0	1.4	-	mW
Cutoff frequency*2	fc	IF=20 mA ± 1 mAp-p	-	5	-	MHz

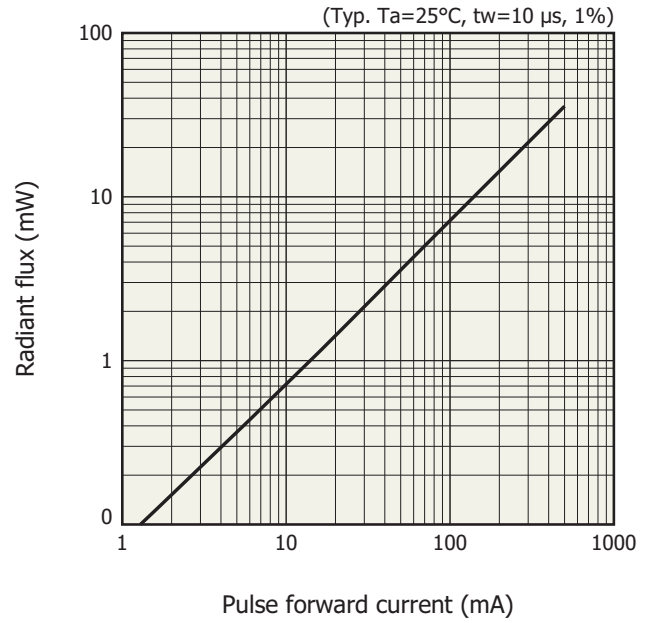
\*2: Frequency at which the light output drops by 3 dB relative to the output at 100 kHz

**Emission spectrum**



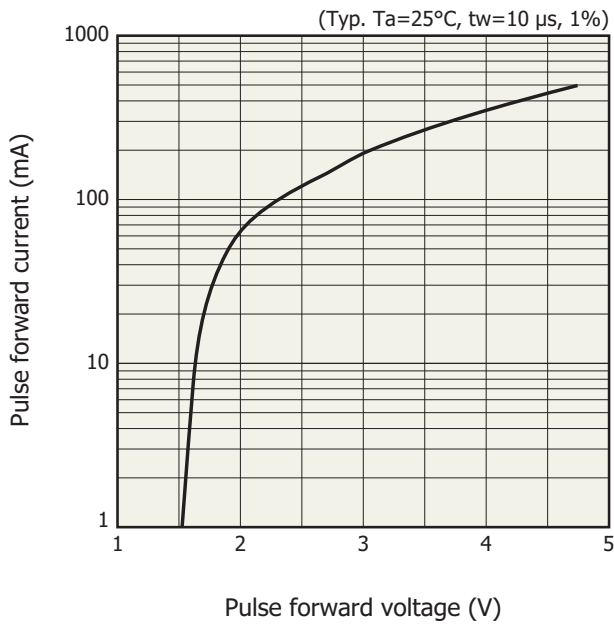
KLEDB0509EA

**Radiant flux vs. pulse forward current**



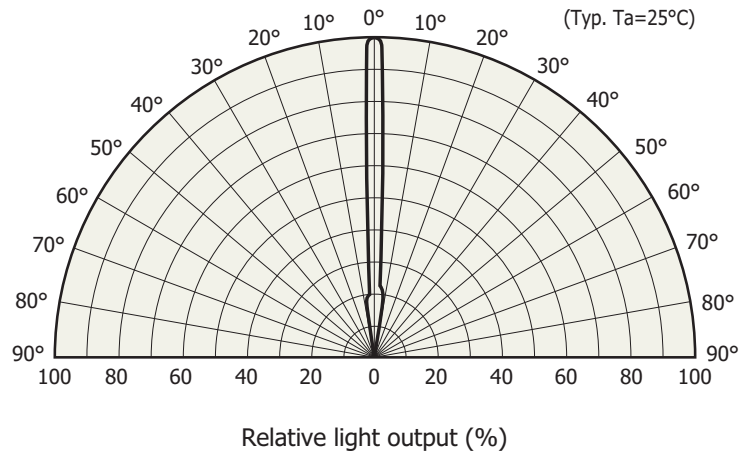
KLEDB05103A

**Pulse forward current vs. pulse forward voltage**



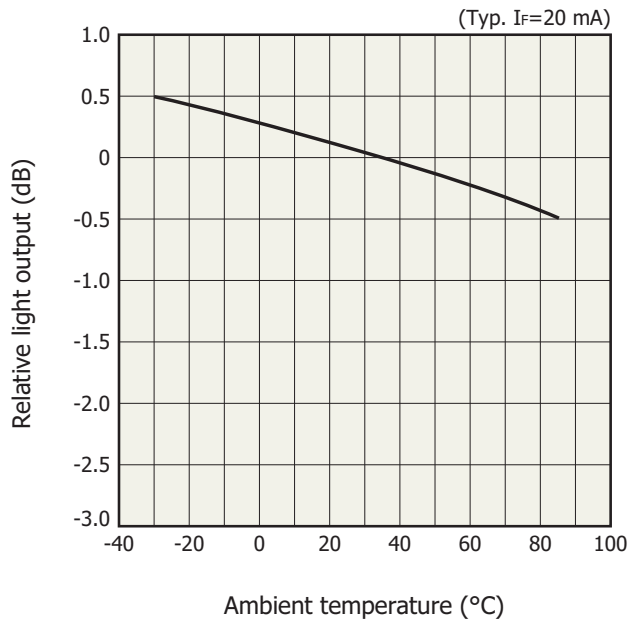
KLEDB0511EA

**Directivity**

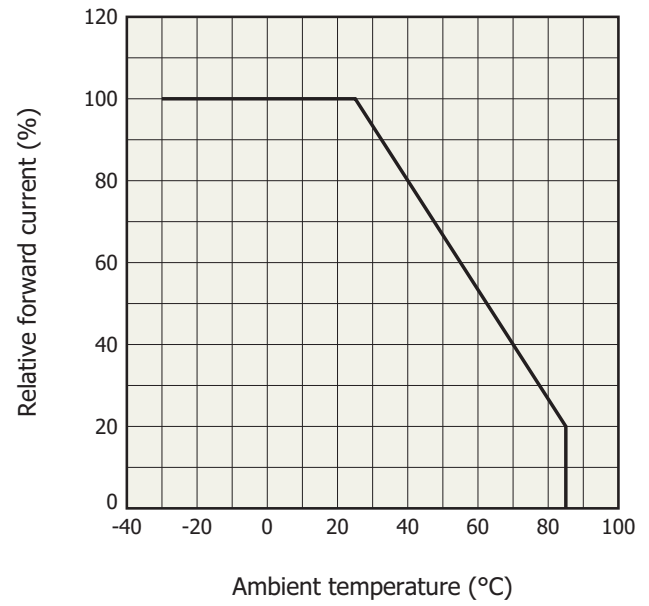


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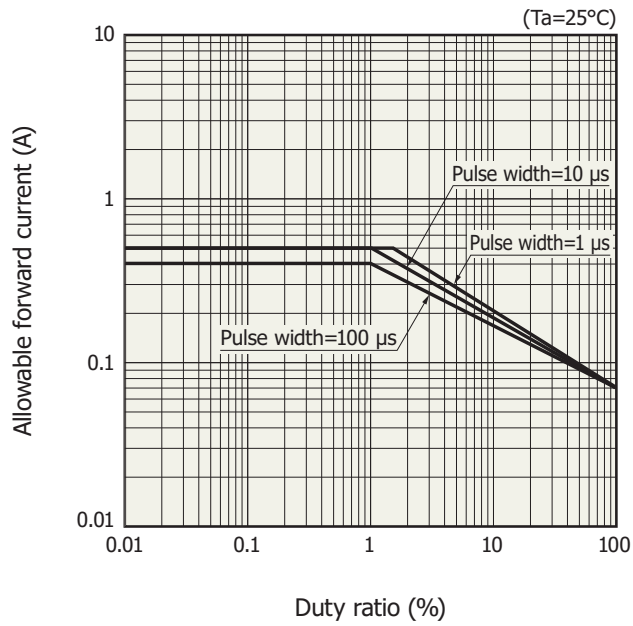
❑ Light output vs. ambient temperature



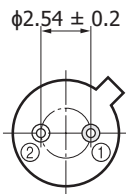
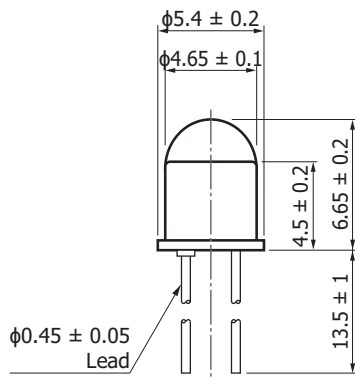
❑ Allowable forward current vs. ambient temperature



❑ Allowable forward current vs. duty ratio



### Dimensional outline (unit: mm)



Common to case



KLEDA0104EA

### Standard packing specifications

- Packing state: Paper box (200 pieces/box)

### Related information

[www.hamamatsu.com/sp/ssd/doc\\_en.html](http://www.hamamatsu.com/sp/ssd/doc_en.html)

#### ■ Precautions

- Disclaimer
- Metal, ceramic, plastic packages

#### ■ Technical information

- LED

Information described in this material is current as of June 2019.

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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