



L9338

For optical switches

The L9338 is an infrared LED developed for optical switches and is available at a low cost due to the improved manufacturing process.

Features

- High reliability
- Low price

Applications

- Optical switches

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

Parameter	Symbol	Condition	Value	Unit
Reverse voltage	VR		5	V
Forward current	IF		80	mA
Forward current reduction 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 reduction 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 2	-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.

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

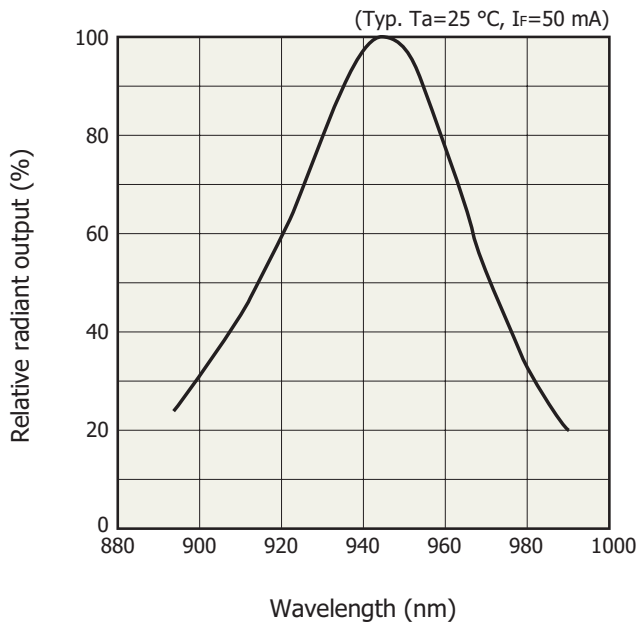
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Electrical and optical characteristics (Ta=25 °C)

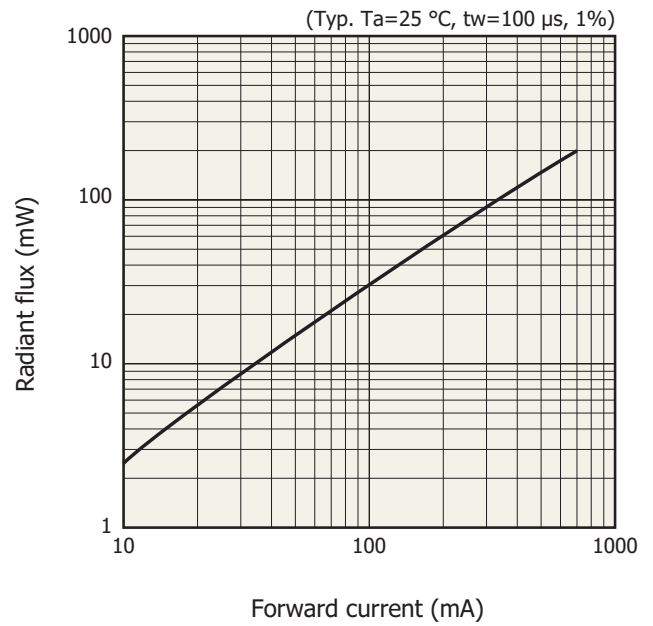
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λp	IF=50 mA	920	945	970	nm
Spectral half width	Δλ	IF=50 mA	-	60	-	nm
Forward voltage	VF	IF=50 mA	-	1.34	1.42	V
Pulse forward voltage	VFP	IF=1 A	-	3.1	3.8	V
Reverse current	IR	VR=5 V	-	-	5	μA
Radiant flux	φe	IF=50 mA	10	15	-	mW
Cutoff frequency*3	fc	IF=50 mA ± 4 mAp-p	0.1	0.3	-	MHz

*3: Frequency at which the optical output drops by 3 dB from that at 10 kHz

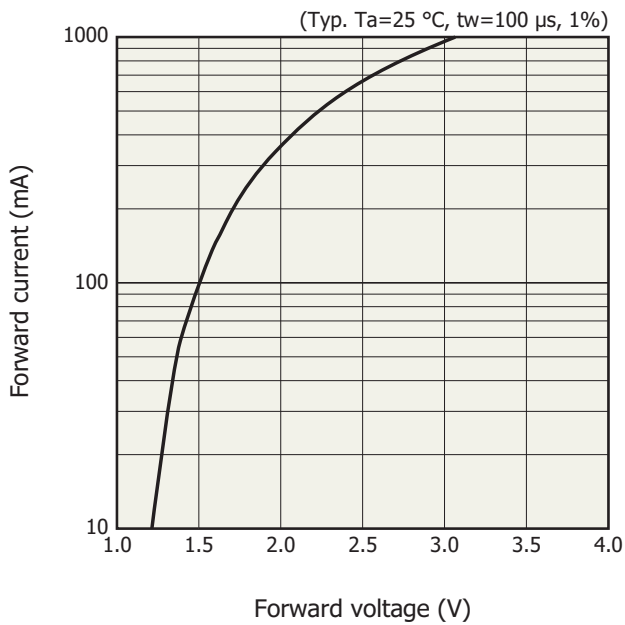
Emission spectrum



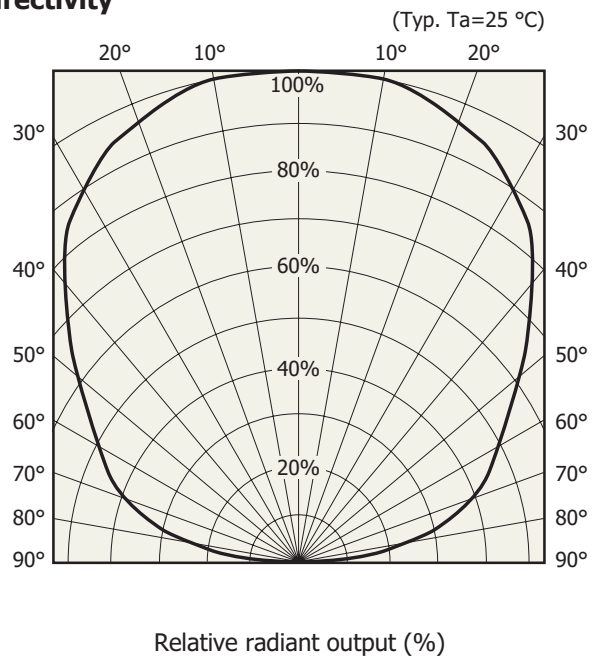
Radiant flux vs. forward current



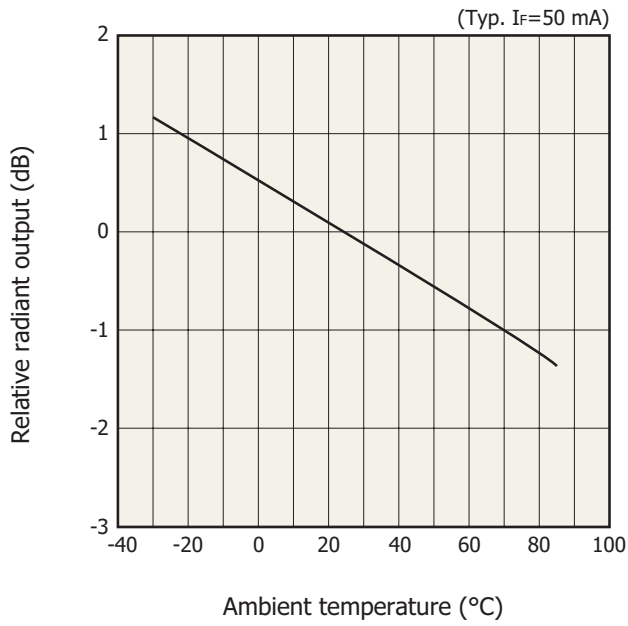
Forward current vs. forward voltage



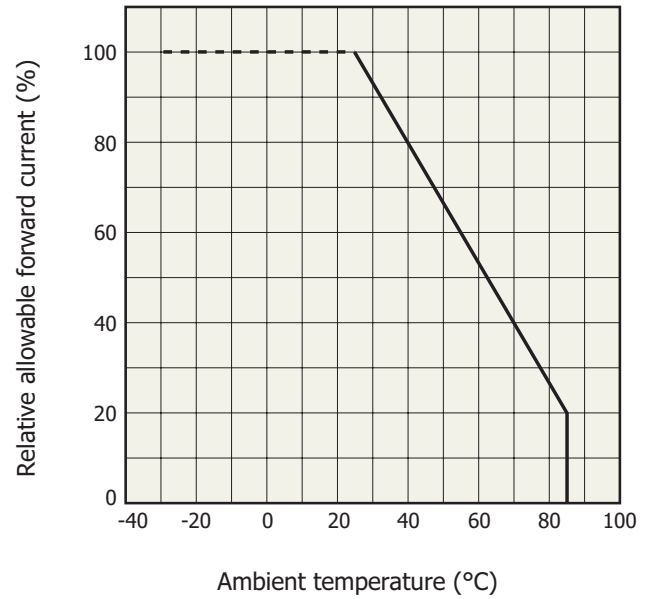
Directivity



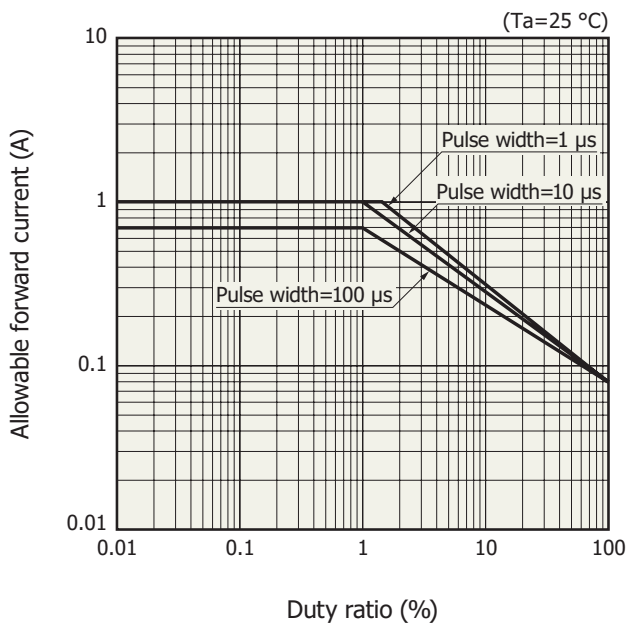
❑ Radiant output vs. ambient temperature



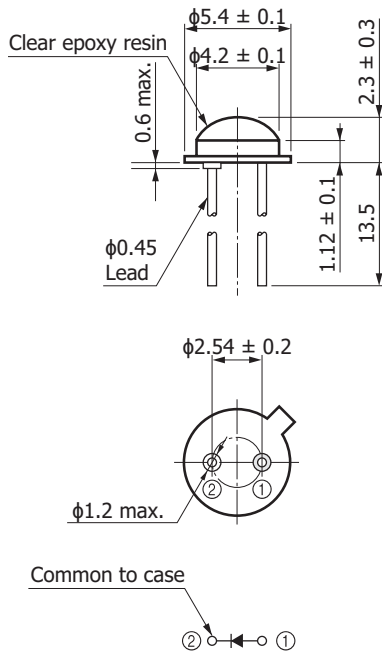
❑ Allowable forward current vs. ambient temperature



❑ Allowable forward current vs. duty ratio



Dimensional outline (unit: mm)



KLEDA0058EB

Related information

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

- Precautions
 - Disclaimer
 - Safety consideration
 - Compound opto-semiconductors (photosensors, light emitters)
- Technical information
 - LED / Technical note

Information described in this material is current as of May, 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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