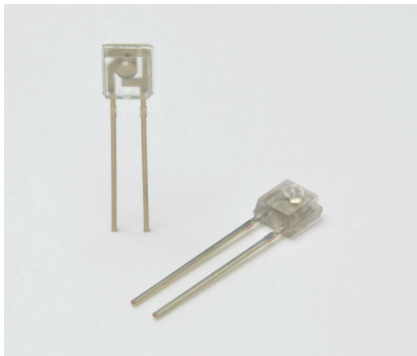


Red LED/Infrared LED



L5766

L6287

Miniature LED

L5766 is a red LED molded into a clear plastic package that emits light at a peak wavelength of 660 nm. L6287 is a high-power infrared LED having the same type of package that emits light at a peak wavelength of 940 nm.

Features

- **L5766: Red LED (peak emission wavelength: 660 nm)**
- **L6287: High-power infrared LED (peak emission wavelength: 940 nm)**
- **Miniature plastic package with lens**

Applications

- **Displacement meters**
- **Optical proximity switches**
- **Low-speed optical links (L5766)**

Absolute maximum ratings (Ta=25 °C)

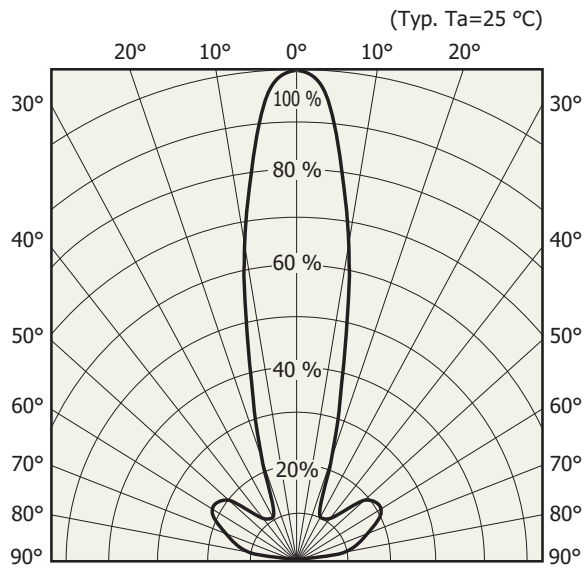
Parameter	Symbol	Condition	L5766	L6287	Unit
Forward current	IF			60	mA
Reverse voltage	VR			5	V
Pulse forward current	IFP	Pulse width: 100 μs Duty ratio: 1 %	0.5	1.0	A
Power dissipation	P			90	mW
Operating temperature	Topr			-25 to +85	°C
Storage temperature	Tstg			-30 to +85	°C

Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	L5766			L6287			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λp	IF=20 mA	-	660	-	-	940	-	nm
Spectral half width	Δλ	IF=20 mA	-	20	-	-	60	-	nm
Forward voltage	VF	IF=20 mA	-	1.8	2.3	-	1.25	1.45	V
Reverse current	IR	VR=5 V	-	-	10	-	-	10	μA
Fiber coupled optical power *	Po	IF=20 mA	8	-	-	-	-	-	μW
Radiant flux	φe	IF=20 mA	-	-	-	1.4	-	-	mW
Terminal capacitance	Ct	VR=0 V, f=1 MHz	-	30	-	-	20	-	pF
Rise time	tr	IF=20 mA	-	-	300	-	-	-	ns
Fall time	tf	IF=20 mA	-	-	300	-	-	-	ns

* Optical fiber: APF 485/500 μm, L=1 m, open area ratio=0.5; Measurement conditions: The center of the optical fiber is aligned with the center of the lens on the package. The distance between the fiber end and the lens top is 0.2 mm.

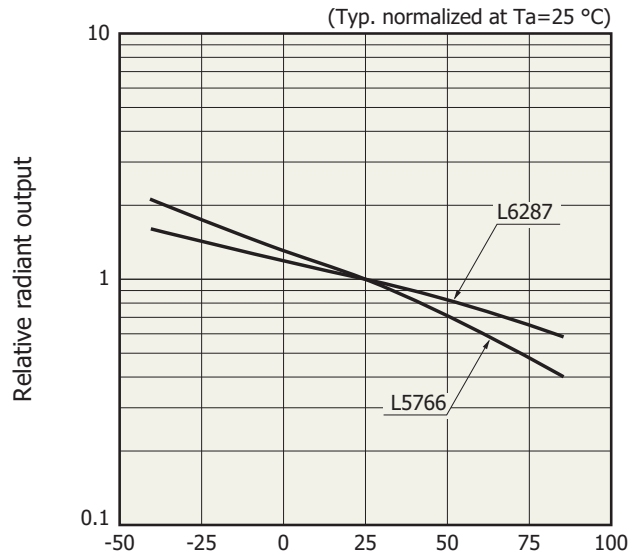
Directivity



Relative radiant output

KLEDB0061EB

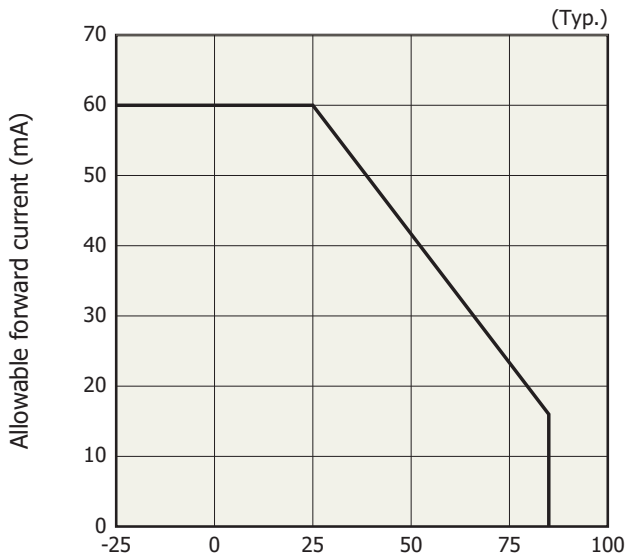
Radiant output vs. ambient temperature



Ambient temperature ($^\circ\text{C}$)

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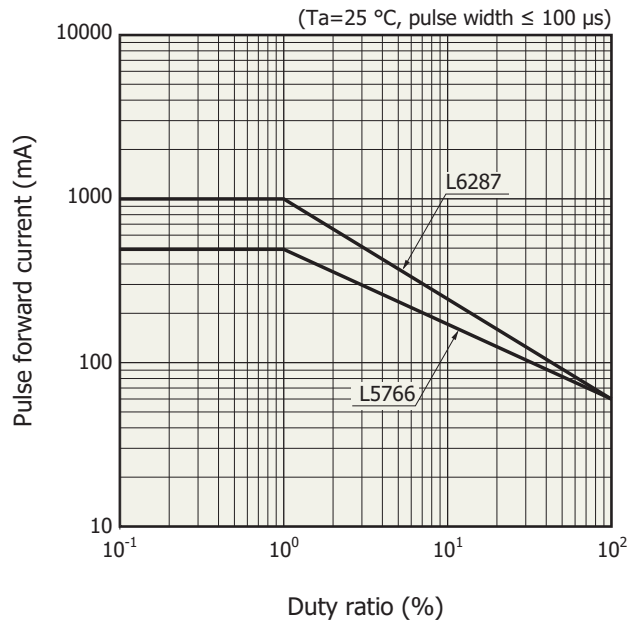
Allowable forward current vs. ambient temperature



Ambient temperature ($^\circ\text{C}$)

KLEDB0083EB

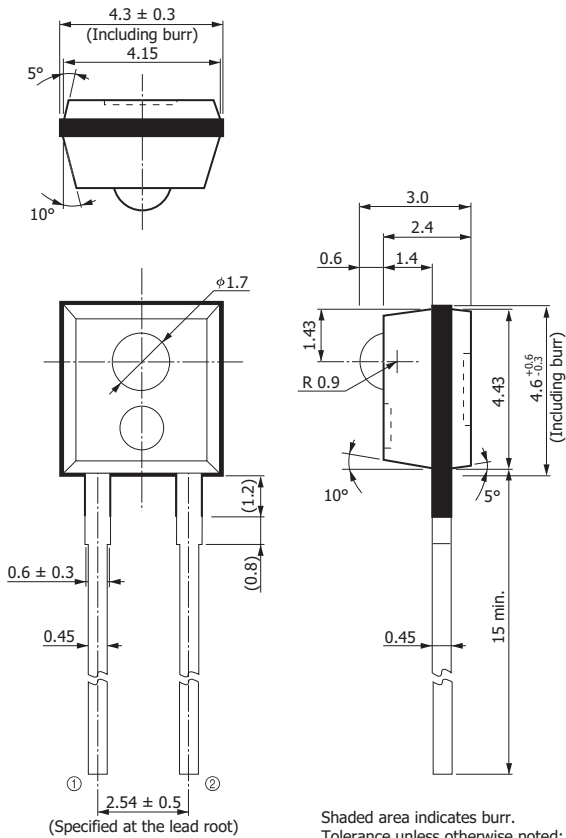
Pulse forward current vs. duty ratio



Duty ratio (%)

KLEDB0107EB

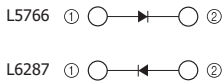
Dimensional outline (unit: mm)



Shaded area indicates burr.
Tolerance unless otherwise noted: ± 0.2 , $\pm 2^\circ$
Values in parentheses are not guaranteed, but for reference.

Packing type: Polyethylene bag (antistatic type)

KLEDA0024EC



Recommended soldering conditions

Parameter	Specification	Remarks
Solder temperature	260 °C max. (3 s)	at least 2.5 mm away from package surface

Note: When setting the soldering conditions, check for any problems by testing out the soldering methods in advance.

Related information

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 March 2021.

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