

Infrared LED

L6895-10

High-power LED with miniature package



L6895-10 is a high-power LED molded into a miniature, clear plastic package that emits infrared light at a peak emission wavelength of 940 nm. An optical encoder resistant to tough environmental conditions can be configured by combining L6895-10 with S7610-10 (made by Hamamatsu).

Features

- Pd plated leads
- Miniature package with lens
- Peak emission wavelength: 940 nm

Applications

- Rotary encoders, etc.

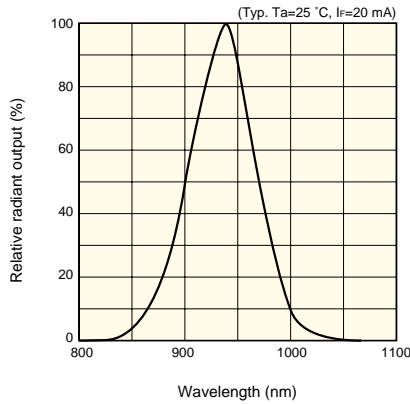
■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Condition	Value	Unit
Forward current	IF		60	mA
Reverse voltage	VR Max.		5	V
Pulse forward current	IFP	Pulse width: 100 μ s Duty ratio: 1 %	1.0	A
Power dissipation	P		90	mW
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-30 to +85	°C
Soldering	-		260 °C, 3 s at least 2.5 mm away from package surface	-

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

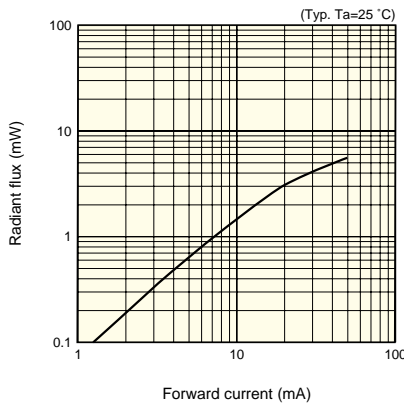
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λ_p	IF=20 mA	-	940	-	nm
Spectral half width	$\Delta\lambda$	IF=20 mA	-	60	-	nm
Forward voltage	VF	IF=20 mA	-	1.25	1.45	V
Reverse current	IR	VR=5 V	-	-	10	μ A
Radiant flux	ϕ_e	IF=20 mA	1.2	-	-	mW
Terminal capacitance	Ct	VR=0 V, f=1 MHz	-	20	-	pF

Emission spectrum



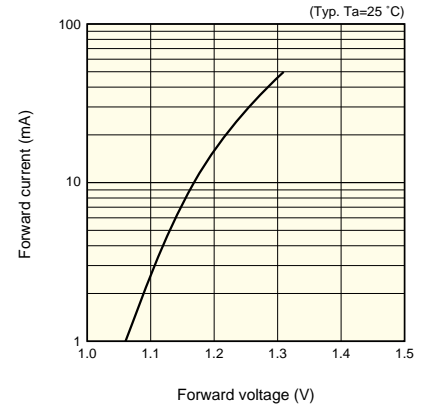
KLEDB0286EA

Radiant flux vs. forward current



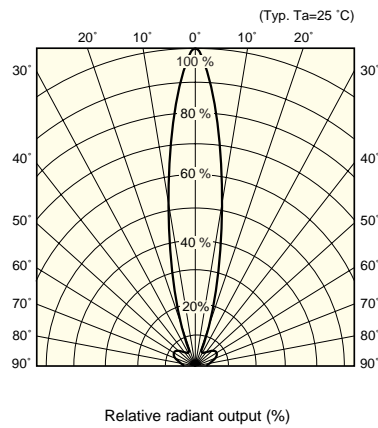
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Forward current vs. forward voltage



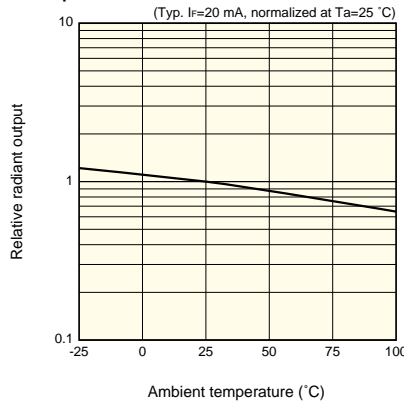
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Directivity



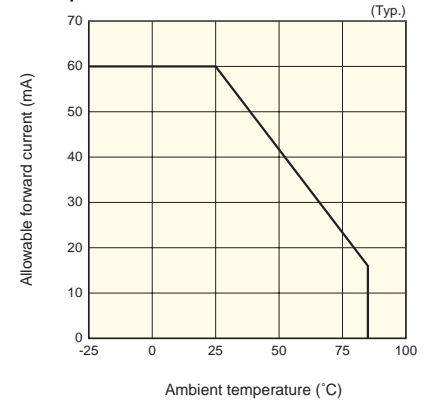
KLEDB0115EA

Radiant output vs. ambient temperature



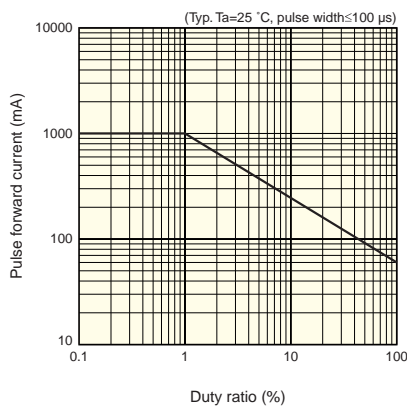
KLEDB0116EA

Allowable forward current vs. ambient temperature



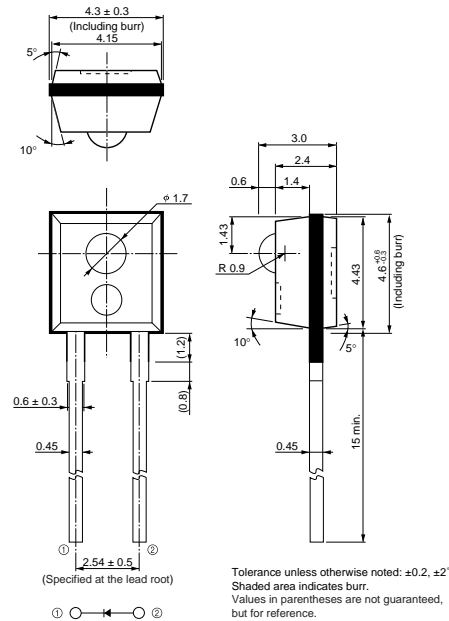
KLEDB0083EA

Pulse forward current vs. duty ratio



KLEDB0084EA

Dimensional outline (unit: mm)



KLEDA0044EA

Information described in this material is current as of June, 2011. Product specifications are subject to change without prior notice due to improvements or other reasons. Before assembly into final products, please contact us for the delivery specification sheet to check the latest information.

Type numbers of products listed in the delivery specification sheets or supplied as samples may have a suffix "(X)" which means preliminary specifications or a suffix "(Z)" which means developmental specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.

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