# 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)

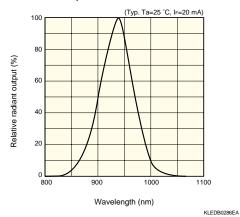
■ Absolute maximum rating	35 (1a-25	( )		
Parameter	Symbol	Condition	Value	Unit
Forward current	lF		60	mA
Reverse voltage	VR Max.		5	V
Pulse forward current	IFP	Pulse width: 100 µs Duty ratio: 1 %	1.0	Α
Power dissipation	Р		90	mW
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-30 to +85	°C
Soldering	-		260 °C, 3 s at least 2.5 mm away from package surface	-

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

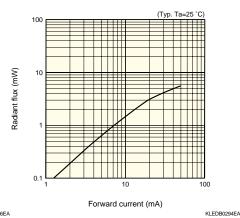
Electrical and optical cha	racteristic	US (1a-25 C)				
Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
Peak emission wavelength	λр	IF=20 mA	-	940	-	nm
Spectral half width	Δλ	IF=20 mA	-	60	-	nm
Forward voltage	VF	IF=20 mA	-	1.25	1.45	V
Reverse current	lR	VR=5 V	-	-	10	μA
Radiant flux	фе	IF=20 mA	1.2	-	-	mW
Terminal capacitance	Ct	VR=0 V, f=1 MHz	-	20	-	pF



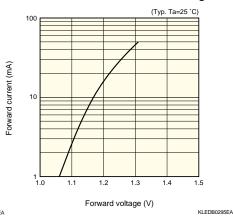
#### ■ Emission spectrum



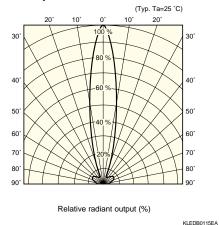
#### ■ Radiant flux vs. forward current



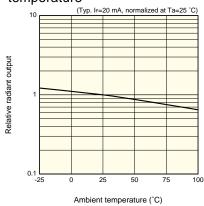
#### ■ Forward current vs. forward voltage



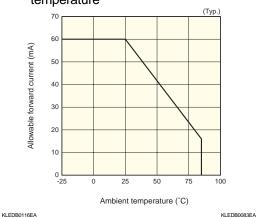
#### ■ Directivity



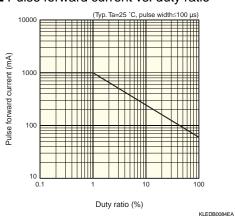
# ■ Radiant output vs. ambient temperature



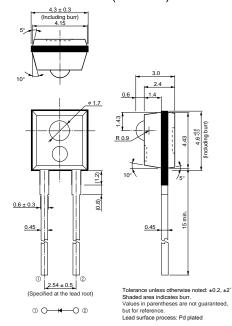
# ■ Allowable forward current vs. ambient temperature



#### ■ Pulse forward current vs. duty ratio



#### ■ Dimensional outline (unit: mm)



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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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