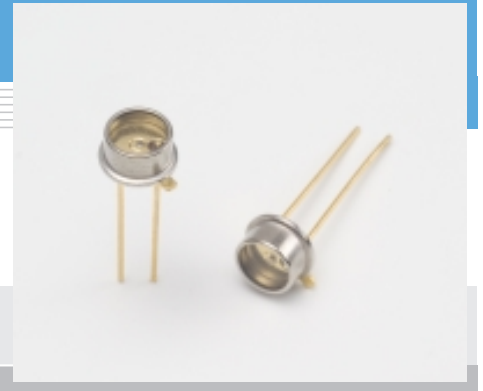


# Red LED L9907

AlGaInP resonant cavity LED for POF data communication



## Features

- High-speed response: 70 MHz
- Optical output power: 1.1 mW
- Emission area diameter: 100  $\mu\text{m}$
- Stable optical output with low temperature dependence:  
85 °C/25 °C=70 %

## Applications

- POF (Plastic Optical Fiber) communication
- Light source for optical switches

### ■ Absolute maximum ratings

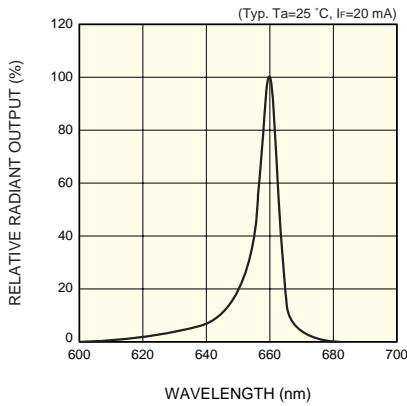
Parameter	Symbol	Value	Unit
Reverse voltage	VR Max.	3	V
Forward current	IF	50	mA
Pulsed forward current *	IFP	100	mA
Operating temperature	Topr	-30 to +85	°C
Storage temperature	Tstg	-45 to +125	°C

\* Pulse width=1  $\mu\text{s}$ , duty ratio 50 %

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

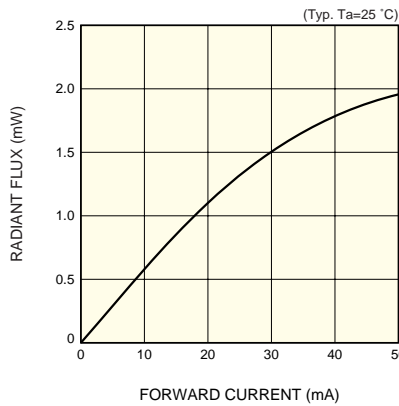
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	$\lambda_p$	IF=20 mA	640	660	670	nm
Spectral half width	$\Delta\lambda$	IF=20 mA	-	10	20	nm
Radiant flux	$\phi_e$	IF=20 mA	0.8	1.1	-	mW
Forward voltage	VF	IF=20 mA	-	1.9	2.4	V
Cut-off frequency	fc	IF=20 mA $\pm$ 1 mAp-p	60	70	-	MHz
Optical output ratio at different temperatures	dP/dTj	IF=20 mA, 85 °C/25 °C	-	70	-	%

## ■ Emission spectrum



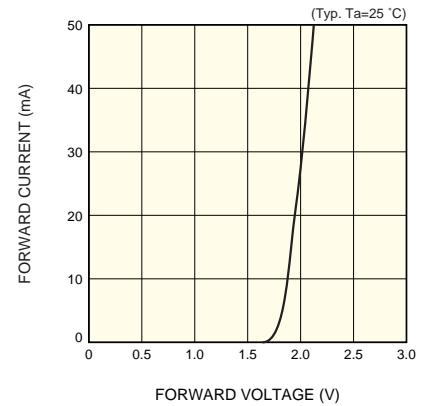
KLEDB0264EA

## ■ Radiant flux vs. forward current



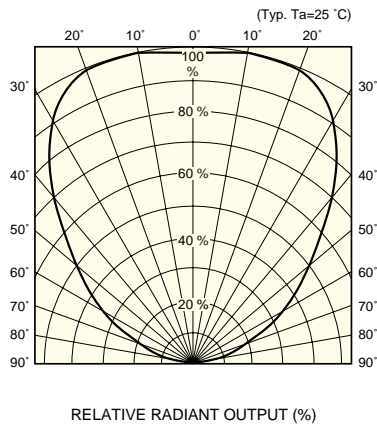
KLEDB0265EA

## ■ Forward current vs. forward voltage



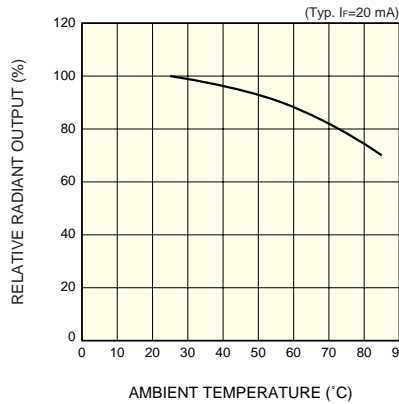
KLEDB0267EA

## ■ Directivity



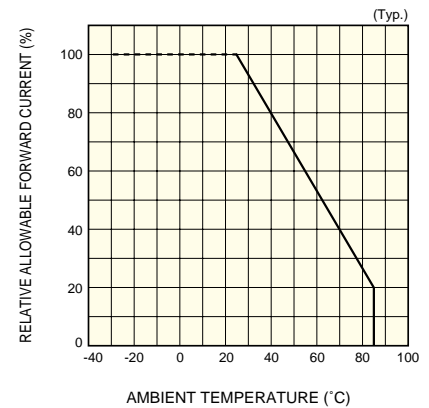
KLEDB0301EA

## ■ Radiant output vs. ambient temperature



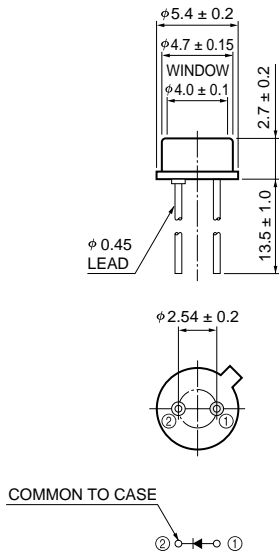
KLEDB0266EA

## ■ Allowable forward current vs. ambient temperature



KLEDB0027EB

## ■ Dimensional outline (unit: mm)



KLEDA0073EA

# HAMAMATSU

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