

# OKI electronic components

## OLD2210

### GaAlAs Infrared Light Emitting Diode

#### GENERAL DESCRIPTION

The OLD2210 is a high output GaAlAs infrared light emitting micro-diode sealed with a collimator lens composed of transparent epoxy resin.

#### FEATURES

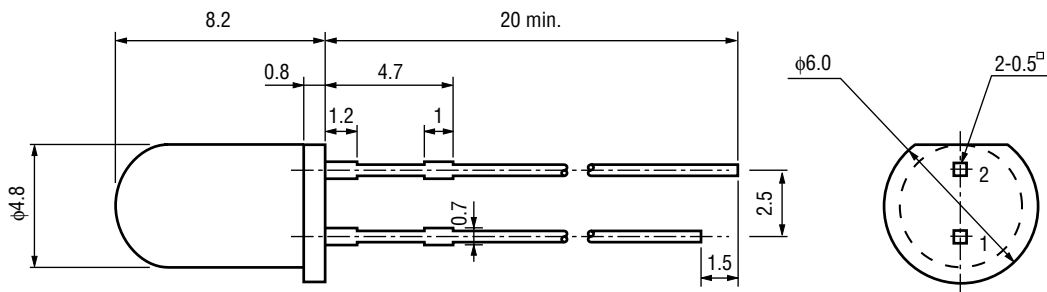
- Parallel beam
- Peak-emission wavelength : 910 nm

#### APPLICATIONS

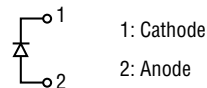
- Rotary encoder unit
- Potentiometer
- Optical switch
- Optical counter
- Level control unit
- Edge detector
- Application equipment for infrared light

#### PIN CONFIGURATION

(Unit: mm)



#### • Pin Connection Diagram



**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Test Condition	Rating	Unit
Forward Current	$I_F$	Ta=25°C	100	mA
Forward Current Derating Factor *1	—		1.34	mA/°C
Pulse Forward Current *2	$I_{FRM}$		1	A
Reverse Voltage	$V_R$		6	V
Power Dissipation	$P_{tot}$		200	mW
Operating Temperature	$T_{opr}$	—	-30 to +80	°C
Storage Temperature	$T_{stg}$	—	-30 to +80	°C
Lead Soldering Temperature *3	$T_{slid}$	—	260	°C

\*1 Ta ≥ 25°C

\*2 Pulse width  $t_w=100 \mu s$ , cycle T=10,000  $\mu s$

\*3 Within 5 seconds, at least 2 mm from base of lead

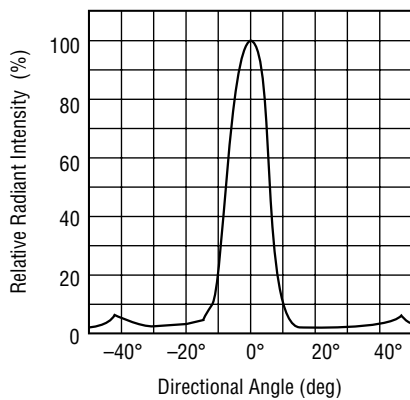
**ELECTRICAL AND OPTICAL CHARACTERISTICS**

(Ambient Temperature Ta=25°C)

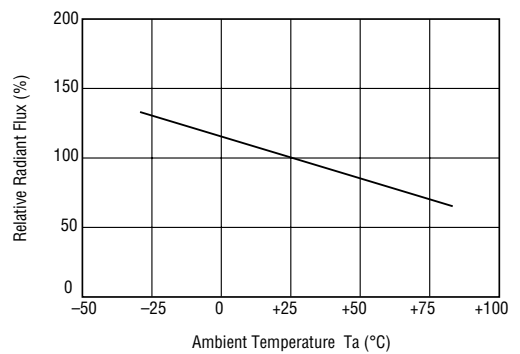
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=100 \text{ mA}$	—	1.55	2.0	V
Reverse Current	$I_R$	$V_R=6 \text{ V}$	—	—	10	$\mu A$
Radiant Flux	$\phi_e$	$I_F=100 \text{ mA}$	15	—	25	mW
Peak-emission Wavelength	$\lambda_p$	$I_F=100 \text{ mA}$	—	910	—	nm
Spectral Bandwidth	$\Delta\lambda$	$I_F=100 \text{ mA}$	—	80	—	nm

**TYPICAL CHARACTERISTICS**

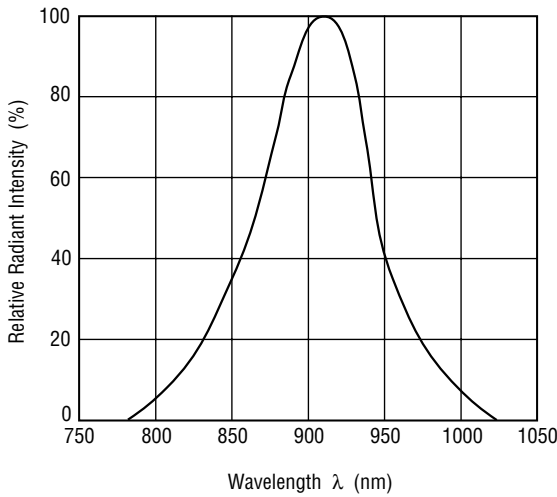
- **Directional Characteristic**



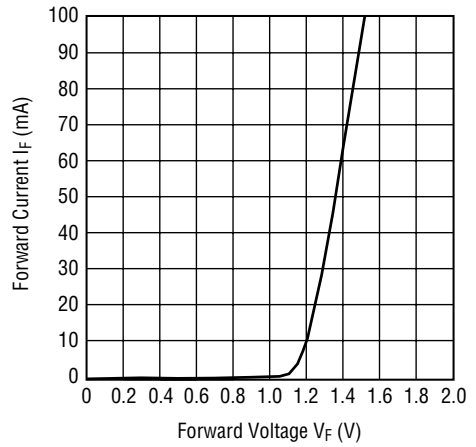
- **Radiant Flux vs. Ambient Temperature Characteristic**



- Spectral Distribution (Ta=25°C)



- DC Forward Current vs. Forward Voltage Characteristic (Ta=25°C)



- Maximum Pulse Forward Current Tolerance

