OKI electronic components

OLD232-2

GaAlAs Infrared Light Emitting Diode

GENERAL DESCRIPTION

The OLD232-2 is a high-output GaAlAs infrared light emitting diode sealed with a glass lens in a highly reliable metal can on a TO-46 type stem . Its light emission wavelength peaks at 910 nm.

Because of its high reliability, the OLD232-2 can be the most suitable combination with Si photo-detectors.

FEATURES

- Metal can package (with lens)
- Peak-emission wavelength : 910 nm
- Very high output power: 12 mW Typ. (I_F=100 mA)
- Highly directional output
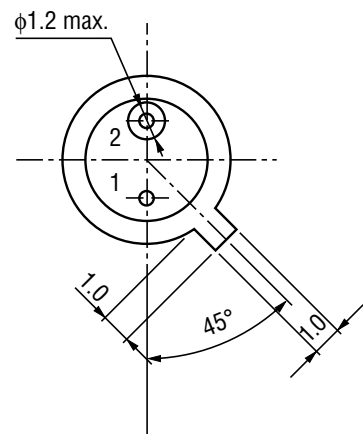- Compact and light-weighted
- Long life

APPLICATIONS

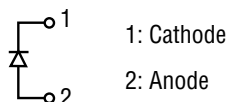- Light source for optical readers and control equipment

PIN CONFIGURATION
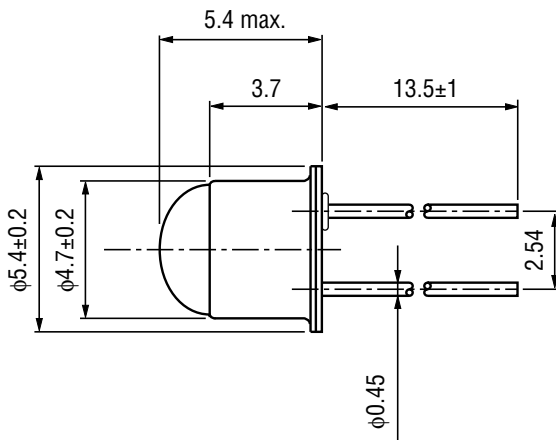
(Unit: mm)

• Pin Connection Diagram

1: Cathode
2: Anode

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Condition	Rating	Unit
Forward Current	I_F		100	mA
Forward Current Derating Factor *1	—		1	mA/°C
Pulse Forward Current *2	I_{FRM}	Ta=25°C	1	A
Reverse Voltage	V_R		6	V
Power Dissipation	P_{tot}		200	mW
Operating Temperature	T_{opr}	—	−40 to +125	°C
Storage Temperature	T_{stg}	—	−55 to +125	°C
Lead Soldering Temperature *3	T_{sld}	—	260	°C

*1 Ta $\geq$ 25°C
*2 Pulse width tw=110 μs, cycle T=10,000 μs
*3 Within 5 seconds, at least 2 mm from base of lead

ELECTRICAL AND OPTICAL CHARACTERISTICS

(Ambient Temperature Ta=25°C)

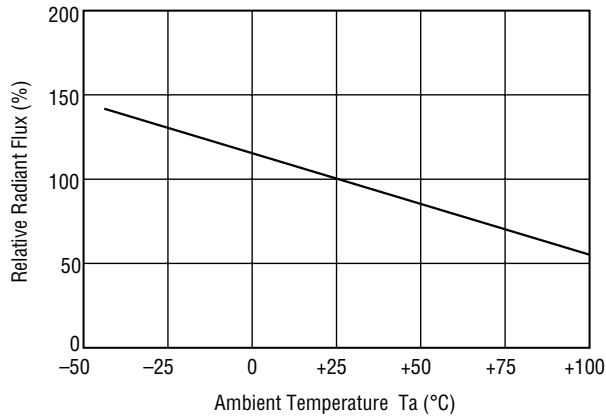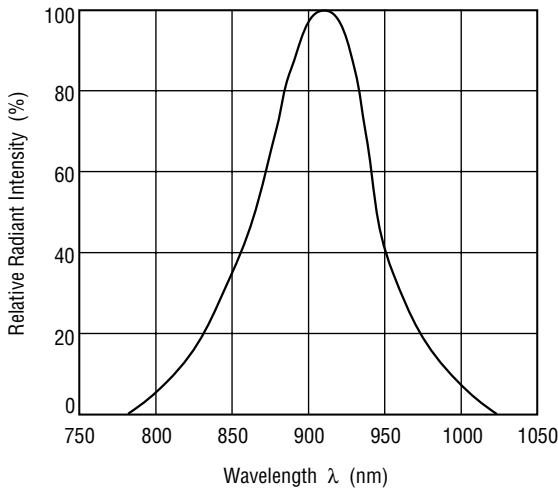| Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=100 mA	—	1.55	2	V
Reverse Current	I_R	V_R=6 V	—	—	10	μA
Radiant Flux	ϕ_e	I_F=100 mA	8	12	—	mW
Peak-emission Wavelength	λp	I_F=100 mA	—	910	—	nm
Spectral Bandwidth	$\Delta\lambda$	I_F=100 mA	—	80	—	nm

TYPICAL CHARACTERISTICS

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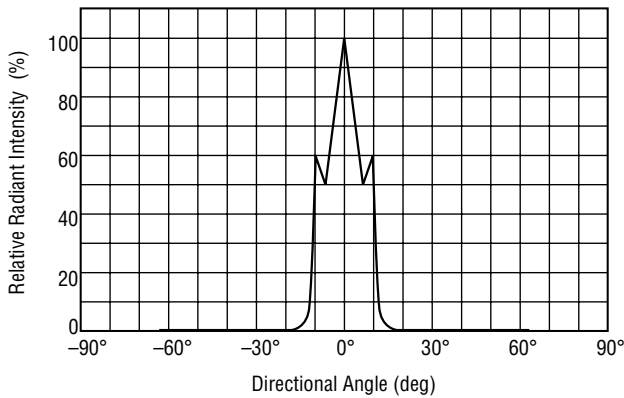
- **Radiant Flux vs. Ambient Temperature**

- **Spectral Distribution (Ta=25°C)**

- **DC Forward Current vs. Forward Voltage (Ta=25°C)**
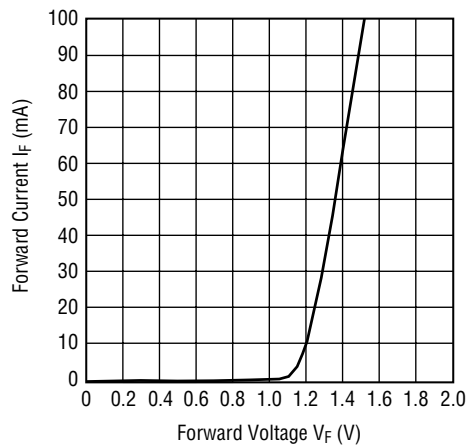
- **Maximum Pulse Forward Current Tolerance**

$I_{FRM}/100$ Maximum Pulse Forward Current Derating Factor at Ta≥25°C (mA/°C)

$$D = \frac{tw}{T} \times 100 \ (\%)$$