KODENSHI KODENSHI CORP.

Infrared Emitting Diode

EL-1L7

1. General Description:

The EL-1L7 is a GaAlAs infrared emitting diode mounted in a T1¾ plastic package. Specially designed GaAlAs chip emits significant infrared light and specially designed plastic lens makes the component radiates wide beam.

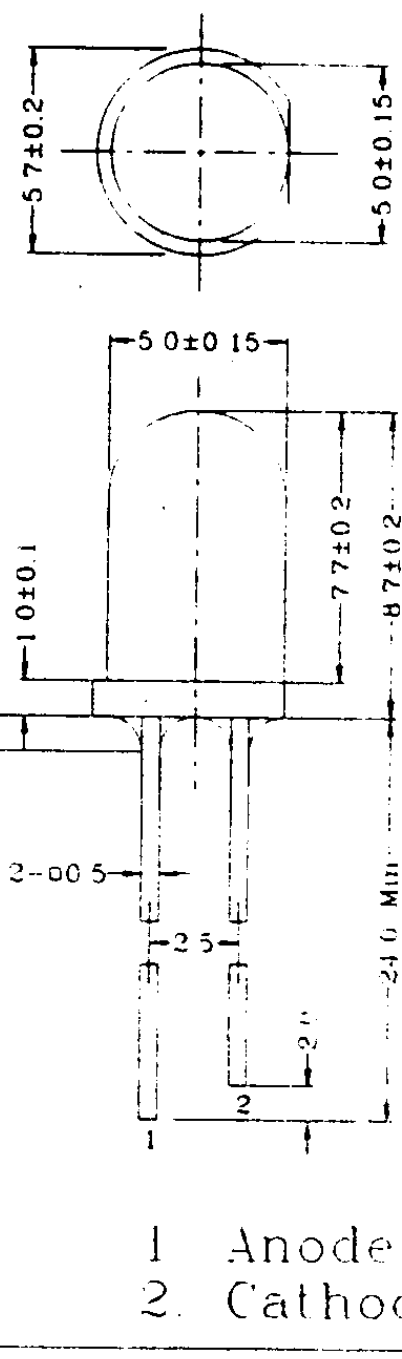
2. Features

- High output power
- Suitable beam angle
- High reliability
- Capable of pulse operation

3. Applications

- Optical emitters
- Optical switches
- Smoke sensors
- IR remote control
- IR sound transmission

Dimensions (Unit:mm)



EL-1L7

1. Anode
2. Cathode

4. Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	I_F	100	mA
Pulse Forward current *1	I_{FP}	1	A
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	100	mW
Operating Temperature	T_{opr}	-30 ~ +70	°C
Storage Temperature	T_{stg}	-30 ~ +80	°C
Soldering Temperature *2	T_{sol}	260	°C

*1 Pulse width tw ≤ 100μsec. Duty ratio T = 10msec.

*2 At the position of 2mm from the bottom of the package within 5 seconds.

5. Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Testing Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=100mA		1.4	1.7	V
Reverse Current	I_R	V_R=5V			10	μA
Radiant Intensity	Ie	I_F=100mA	30	50		mW/sr
Terminal Capacitance	C_t	f=1MHz		20		pF
Half Power Beam Angle	Δθ			±30		deg.
Peak Emission Wavelength	λp	I_F=50mA		940		nm
Spectral Bandwidth at 50%	Δλ	I_F=50mA		50		nm