



ELD-1300-525

- IR Through Hole LED
- 1300 nm, 5.0 mW
- AlGaAs chip
- 5 mm Epoxy Resin Package
- Beam Angle: $\pm 7.5^\circ$



Description

ELD-1300-525 is an AlGaAs based infrared LED, emitting at a peak wavelength of typically 1300 nm and optical output power of 5.0 mW @ 20 mA. It comes in a **5 mm through hole** clear epoxy resin mold package with a beam angle of $\pm 7.5^\circ$.

Maximum Ratings*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Power Dissipation	P_D		150	mW
Forward Current	I_F		100	mA
Pulse Forward Current **	I_{FP}		200	mA
Reverse Voltage ($I_R=10 \mu A$)	U_R		5	V
Operating Temperature	T_{CASE}	- 20	+ 80	$^\circ C$
Storage Temperature	T_{STG}	- 55	+ 85	$^\circ C$
Lead Solder Temperature ($t_{max. 3s}$)	T_{SLD}		+ 260	$^\circ C$

*Operating close to or exceeding these parameters may damage the device

** duty cycle = 50 %, pulse width < 50 μs

Electro-Optical Characteristics ($T_{CASE} = 25^\circ C$)

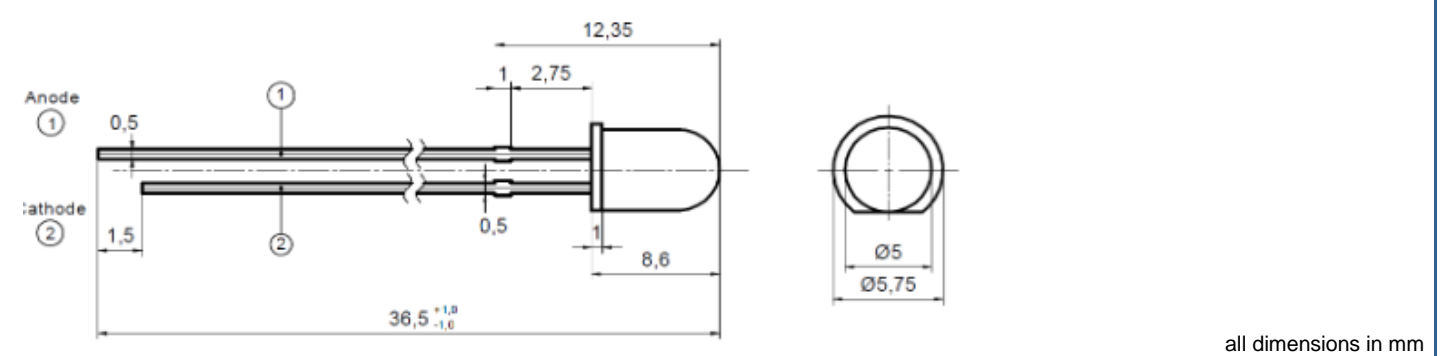
Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength	λ_P	$I_F=20 \text{ mA}$		1300		nm
Half Width	λ_Δ	$I_F=20 \text{ mA}$		80		nm
Forward Voltage	U_F	$I_F=20 \text{ mA}$		1.0		V
		$I_F=100 \text{ mA}$		1.2		
Total Radiated Power	P_O	$I_F=20 \text{ mA}$		5		mW
		$I_F=100 \text{ mA}$		16		
Beam Angle	$2\theta_{1/2}$	$I_F=20 \text{ mA}$		15		deg
Rise Time	t_r	$I_F=20 \text{ mA}$		25		ns
Fall Time	t_f	$I_F=20 \text{ mA}$		40		ns





Outline Dimensions

5 mm Through Hole



General Notes

Soldering

- Do avoid overheating of the LED
- Do avoid electrostatic discharge (ESD)
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux
- Do not apply current to the LED until it has cooled down to room temperature after soldering

Cleaning

- **Cleaning with isopropyl alcohol, propanol, or ethyl alcohol is recommended**
- DO NOT USE acetone, chloroform, trichloroethylene, or MKS
- DO NOT USE ultrasonic cleaners

Static Electricity

- **LEDs are sensitive to electrostatic discharge (ESD).**
- Precautions against ESD must be taken when handling or operating these LEDs
- Surge voltage or electrostatic discharge can result in complete failure of the LED.

Radiation

- During operation these LEDs do emit light, which **could be hazardous to skin and eyes**, and **may cause cancer**.
- Do avoid exposure to the emitted light. Protective glasses if needed
- It is further advised to attach a warning label on products/systems.

Operation

- **Do only operate LEDs with a current source.**
- Running these LEDs from a voltage source will result in complete failure of the device.
- Current of a LED is an exponential function of the voltage across it. Usage of current regulated drive circuits is mandatory.

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