



ELD-880-525

- Infrared Light Emitting Diode
- 880 nm, 45 mW
- Viewing angle: 20°
- Package: 5 mm clear epoxy



Description

ELD-880-525 is a AlGaAs based Light Emitting Diode with a typical peak wavelength of 880 nm and an optical output power of 45 mW. It is mounted on a lead frame and encapsulated in a standard clear 5 mm epoxy package.

Maximum Ratings ($T_{CASE}=25^{\circ}C$)

Parameter	Symbol	Values		Unit
		Min.	Max.	
Power Dissipation	P_D		200	mW
Forward Current	I_F		150	mA
Peak Forward Current	I_{FP}		200	mA
Operating Temperature	T_{CASE}	- 20	+ 70	°C
Storage Temperature	T_{STG}	- 40	+ 100	°C
Junction Temperature	T_J		+ 100	°C
Lead Soldering Temperature	T_{SLD}		+ 260	°C

Optical and Electrical Characteristics ($T_{CASE}=25^{\circ}C$)

Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength	λ_P	$I_F=100mA$	865	880	895	nm
Spectral Half Width (FWHM)	$\Delta\lambda_{0,5}$	$I_F=100mA$		50		nm
Radiated Power	Φ_E	$I_F=20mA$	7	11		mW
Radiated Power *	Φ_E	$I_F=100mA$		45		mW
Radiant Intensity *	I_E	$I_F=100mA$	150	220		mW/sr
Forward Voltage	V_F	$I_F=20mA$		1.4	1.8	V
Forward Voltage	V_F	$I_F=100mA$		1.6	2.0	V
Reverse Voltage	V_R	$I_R=10\mu A$	5			V
Viewing Angle	φ	$I_F=100mA$		20		deg.
Rise Time	t_R	$I_F=100mA$		10		ns
Fall Time	t_F	$I_F=100mA$		20		ns

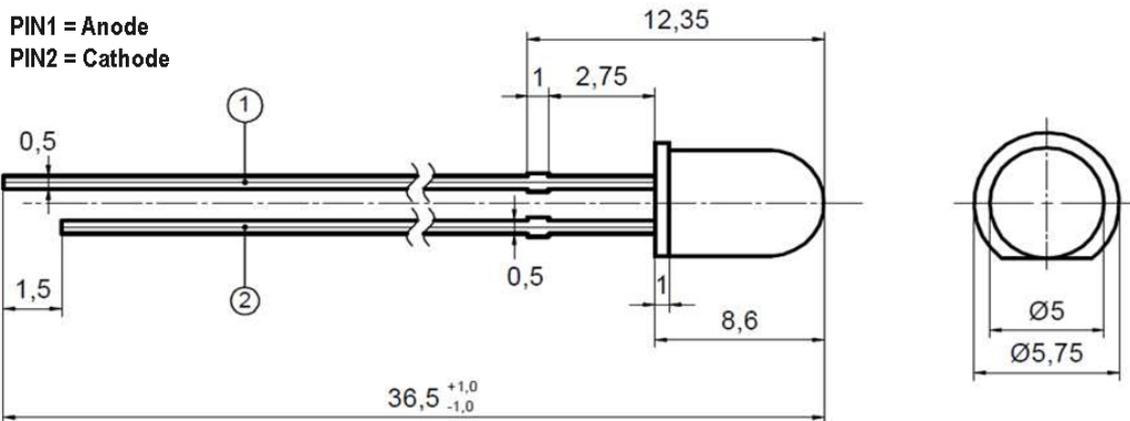
* measured after 30s current flow



Outline Dimensions

ELD-880-525

5 mm epoxy



All Dimensions in mm

Precautions

Cautions:

DO NOT look directly into the emitted light or look through the optical system. To prevent in adequate exposure of the radiation, wear protective glasses.

Operation:

- Check your connection circuits before turning on the LED
- Mind the LED polarity: LED anode is marked by long pin
- Do only operate LEDs with a current source

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 only cut the leads at room temperature with an ESD protected tool
- Do not solder closer than 3 mm from base of the header
- Do form leads prior to soldering
- Do not impose mechanical stress on the header when forming the leads
- Do not apply current to the LED until it has cooled down to room temperature after soldering

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 device.

