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ELD-900-525

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

RoHS COMPLIANT Pb Pb-Free

Description

ELD-900-525 is a AlGaAs based Light Emitting Diode with a typical peak wavelength of 900 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°C)

Parameter	Symbol	Values Min.	Values Max.	Unit
Power Dissipation	P_D		180	mW
Forward Current	I_F		100	mA
Peak Forward Current	I_{FP}		200	mA
Operating Temperature	T_{CASE}	- 20	+ 85	°C
Storage Temperature	T_{STG}	- 40	+ 100	°C
Junction Temperature	T_J		+ 100	°C

Optical and Electrical Characteristics (T_{CASE}=25°C)

Parameter	Symbol	Conditions	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength	λ_P	I_F=20mA	890	900	910	nm
Spectral Half Width (FWHM)	$\Delta\lambda_{0,5}$	I_F=20mA		65		nm
Radiated Power	Φ_E	I_F=20mA		10		mW
Radiated Power	Φ_E	I_F=100mA		45		mW
Radiant Intensity	I_E	I_F=20mA		40		mW/sr
Radiant Intensity	I_E	I_F=100mA		190		mW/sr
Forward Voltage	V_F	I_F=20mA		1.4		V
Forward Voltage	V_F	I_F=100mA		1.6	2	V
Reverse Voltage	V_R	I_R=10µA	5			V
Viewing Angle	φ	I_F=20mA		20		deg.
Rise Time	t_R	I_F=20mA		35		ns
Fall Time	t_F	I_F=20mA		35		ns

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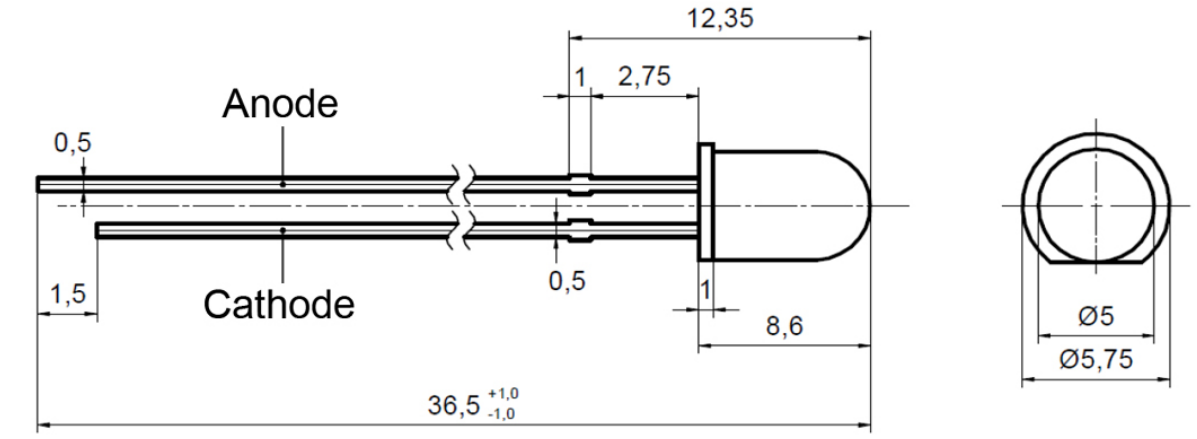
Outline Dimensions

ELD-900-525 **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.