

Emitter Assembly ELM-4000 Series

Dual Drive
Lead Frame Construction
Pulse Oximetry Component
Clear Epoxy

The ELM-4000 Series Emitter Assemblies are specially designed for medical applications where selection of peak wavelength is a key requirement. Emission source material is GaAlAs in conjunction with GaAlP complete with clear epoxy lens.

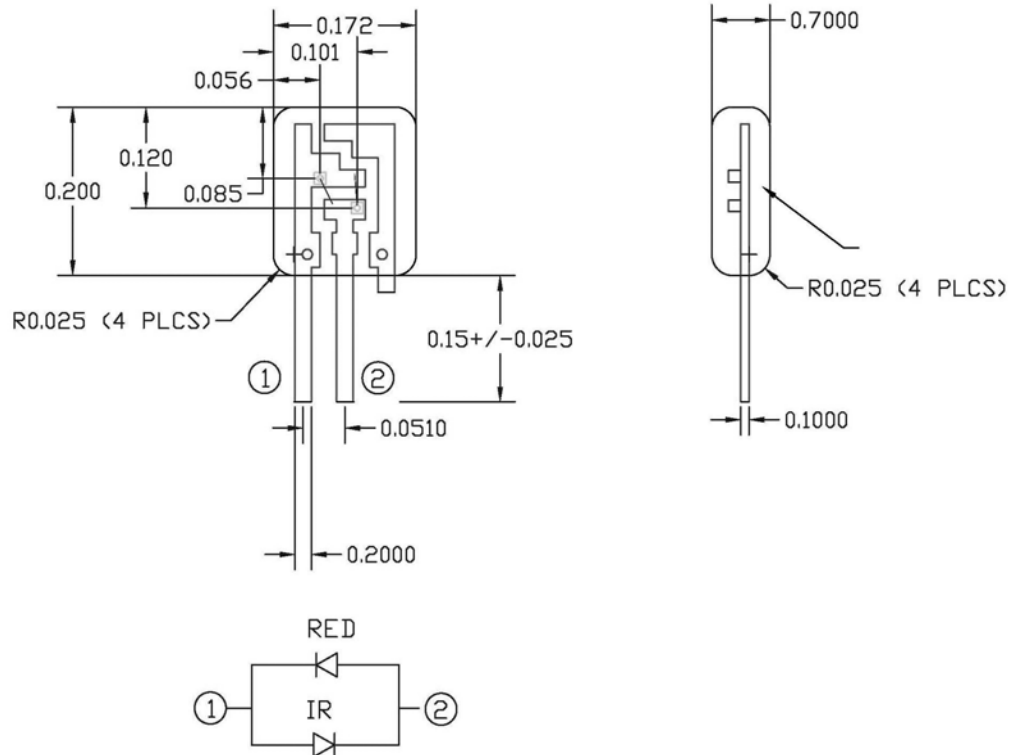
FEATURES

- Low Cost
- 660 nm \pm 3 nm Peak Wavelength Red LED
- Two IR Wavelength Choices
- Dual Drive
- Clear Epoxy Lens

APPLICATIONS

- Pulse Oximetry
- Finger/Ear Probes
- Disposable Strip or Butterfly Sensors

Dimensions (ELM-4001)



Emitter Assembly ELM-4000 Series

Specifications & Ratings

RED 660nm

Parameter @ 25°C	Symbol	Conditions	Min.	Typ.	Max.	Absolute	Unit
Forward Voltage	V_f	$I_f=20\text{mA}$		1.85	2.30		V
Reverse Voltage	V_{B_r}	$I_{br}=10\mu\text{A}$	3.0				V
Reverse Current	I_r	$V_r=3\text{V}$			100		μA
Luminous Intensity	L_v	$I_f=20\text{mA}$	25				mcd
Peak Wavelength	λ_p	$I_f=20\text{mA}$	657	660	663		nm
Spectral Bandwidth	$\lambda\Delta$	$I_f=20\text{mA}$		20			nm

INFRARED 880nm (ELM-4001)

Forward Voltage	V_f	$I_f=20\text{mA}$			1.50		V
Reverse Voltage	V_{B_r}	$I_{br}=10\mu\text{A}$	3.0				V
Reverse Current	I_r	$V_r=3\text{V}$			100		μA
Peak Wavelength	λ_p	$I_f=20\text{mA}$	870	880	890		nm
Spectral Bandwidth	$\lambda\Delta$	$I_f=20\text{mA}$		60	80		nm
Total Output	P_o	$I_f=20\text{mA}$	≥ 0.6	1			mW

INFRARED 940nm (ELM-4002)

Forward Voltage	V_f	$I_f=20\text{mA}$		1.20	1.40		V
Reverse Voltage	V_{B_r}	$I_{br}=10\mu\text{A}$	5.0				V
Reverse Current	I_r	$V_r=3\text{V}$					μA
Peak Wavelength	λ_p	$I_f=20\text{mA}$	930	940	950		nm
Spectral Bandwidth	$\lambda\Delta$	$I_f=20\text{mA}$		45			nm
Total Output	P_o	$I_f=20\text{mA}$	≥ 0.6	1			mW

Ordering Information

Description

Emitter Assembly; Lead Frame; 660nm/880nm
Emitter Assembly; Lead Frame; 660nm/940nm

Part Number

ELM-4001
ELM-4002

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