

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.

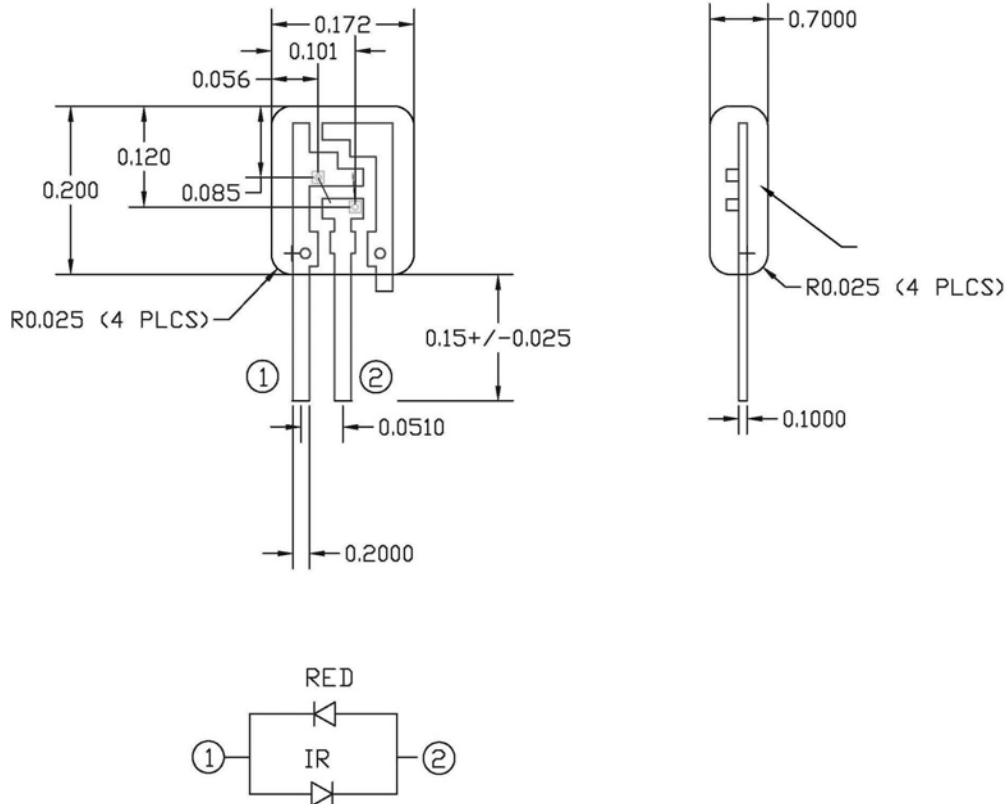
FEATURES

- Low Cost
- 660 nm ± 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)



Specifications & Ratings

RED 660nm

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

INFRARED 880nm (ELM-4001)

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

INFRARED 940nm (ELM-4002)

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

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

Ordering Information

Description

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

Part Number

ELM-4001
ELM-4002

Emitter Assembly ELM-4000 Series