



MEAS DETECTOR ASSEMBLY EPM-4001

Photo Optic Sensor

- Silicon Photodiode
- Lead Frame Construction
- Pulse Oximetry Component

The EPM-4001 Detector Assembly uses a silicon planar diffused photodiode specially designed for medical applications. It features high efficiency and fast response. The EPM-4001 Detector Assembly is spectrally matched to emitter assemblies ELM-4001, ELM-4002 and ELM-4003.

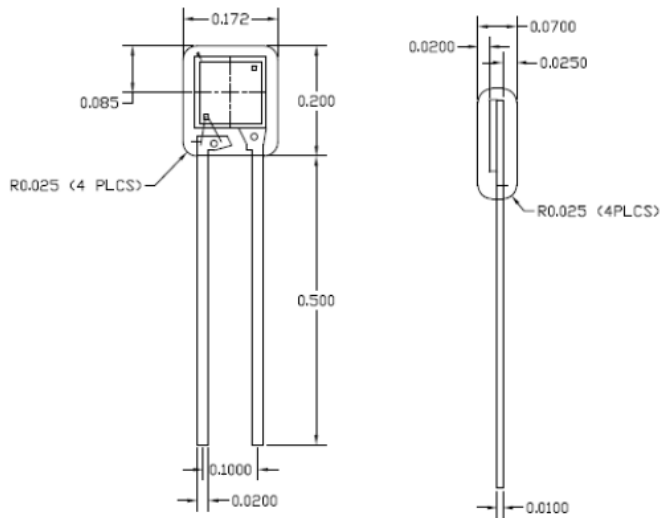
Features

- Low Cost
- Lead Frame Construction
- Fast Response
- Matched to 660nm Emitters
- High Efficiency
- Clear Epoxy Lens
- Compact Package
- Active Area: 8.23mm²

Applications

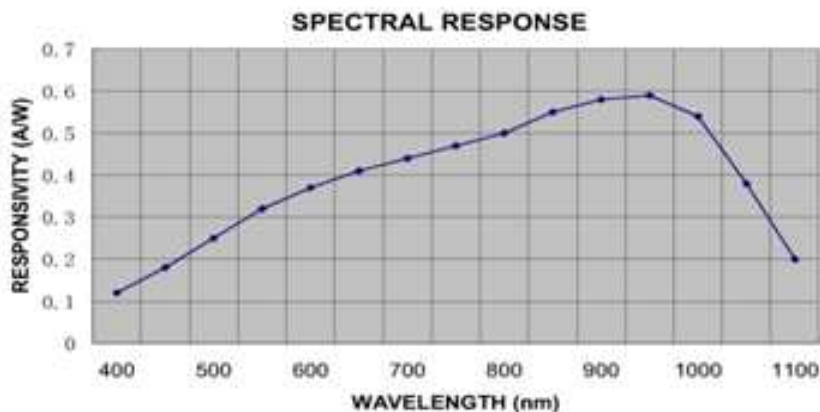
- Pulse Oximetry
- Finger/Ear Probes
- Disposable Strip or Butterfly

Dimensions (ELM-4001)



Specifications and Ratings

Parameter @ 25°C	Symbol	Conditions	Min.	Typ.	Max.	Absolute	Unit
Power Dissipation	P_d					150	mW
Operating Temperature	T_{opr}					-25~+80	°C
Storage Temperature	T_{stg}					-40~+80	°C
Soldering Temperature	T_{sol}					260	°C
Forward Voltage	V_f	$I_r=100\mu A$			0.70		V
Reverse Voltage	V_r	$I_r=100\mu A$	50				V
Shunt Resistance	R_{sh}	$\pm 10mV$	40				MΩ
Capacitance	C_t	$V_R=5V, f=1MHz$		19			pF
Spectral Sensitivity	λ		400		1080		nm
Rise Time/Fall Time	T_r/T_f	$V_r=0V, R_l=50\Omega$			350		nSec
Responsivity	R	$\lambda=540nm$	0.28				A / W
Temp. Coef. Of Isc	β_t				0.18		%



Ordering Information

Description	Part Number
Detector Assembly; Lead Frame; 8.23mm ²	EPM-4001 / 20-0576