

# Detector Assembly EPM-4001

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.

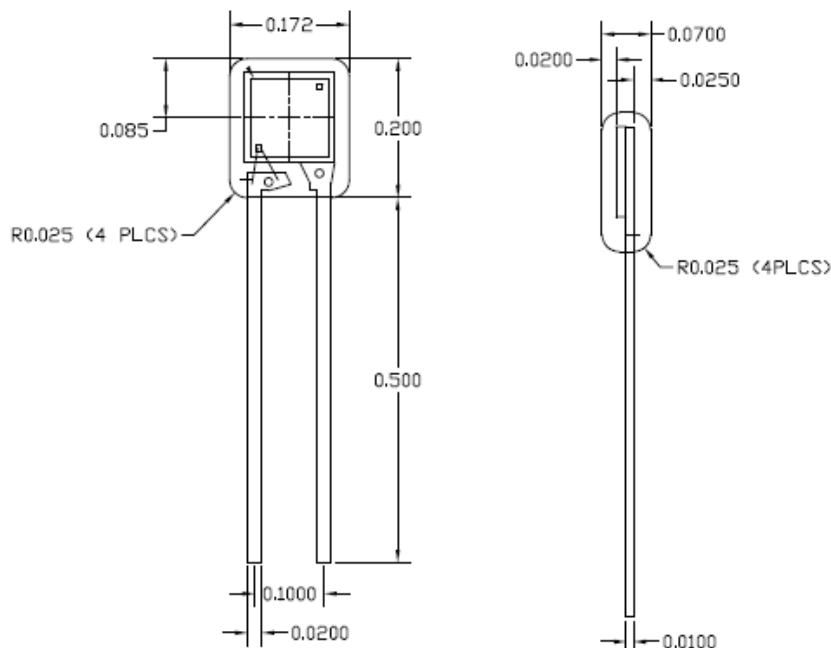
## FEATURES

- Low Cost
- Lead Frame Construction
- Fast Response
- Matched to 660nm Emitters
- High Efficiency
- Clear Epoxy Lens
- Compact Package
- Active Area: 8.23mm<sup>2</sup>

## APPLICATIONS

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

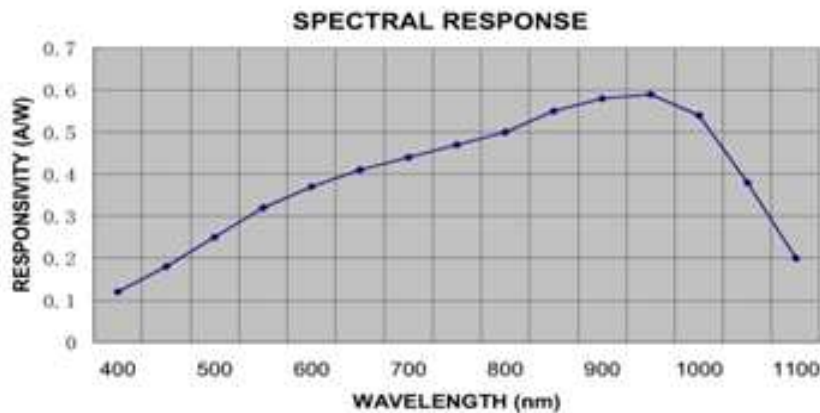
## Dimensions



# Detector Assembly EPM-4001

## Specifications & 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	$\lambda$		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	$\beta_t$				0.18		%



## Ordering Information

Part / Item Number	Description	MOQ
EPM-4001 / 20-0576	Detector Assembly; Lead Frame; 8.23mm <sup>2</sup>	\$1,000

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