



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MEAS DETECTOR ASSEMBLY EPM-4001

SpO₂ Optical Sensor Component

- ◆ Silicon Photodiode
- ◆ Lead Frame Construction
- ◆ Pulse Oximetry Component

Low oxygen level can put a strain on cell functioning including the heart and brain. This is critical in acute medical situations like post-op recovery. TE Connectivity's SpO₂ optical components provide leading accuracy in oxygen level detection.

With more than 27 years of proven reliability and expertise, TE Connectivity (TE) has designed SpO₂ sensors with best-in-class flexibility to accommodate multiple wavelength options.

Our ability to provide both components and complete sensor packages makes us a leading choice for pulse oximetry applications that require high degrees of precision, durability and performance.

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.

MEAS DETECTOR ASSEMBLY EPM-4001

SpO₂ Optical Sensor Component

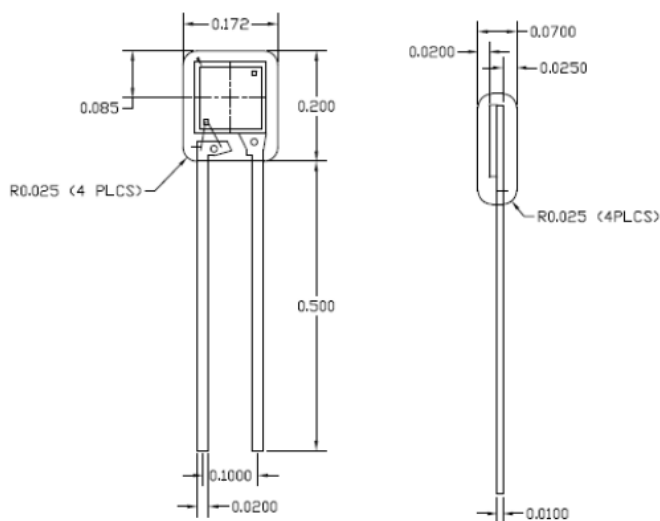
Features

- ◆ Lead Frame Construction
- ◆ Fast Response
- ◆ Matched to 660nm Emitters
- ◆ High Efficiency
- ◆ Clear Epoxy Lens
- ◆ Compact Package
- ◆ Active Area: 8.07mm²

Applications

- ◆ Pulse Oximetry
- ◆ SpO₂ Finger/Ear Reusable Probes
- ◆ SpO₂ Disposable Strip or Butterfly Probes

Dimensions (ELM-4001)

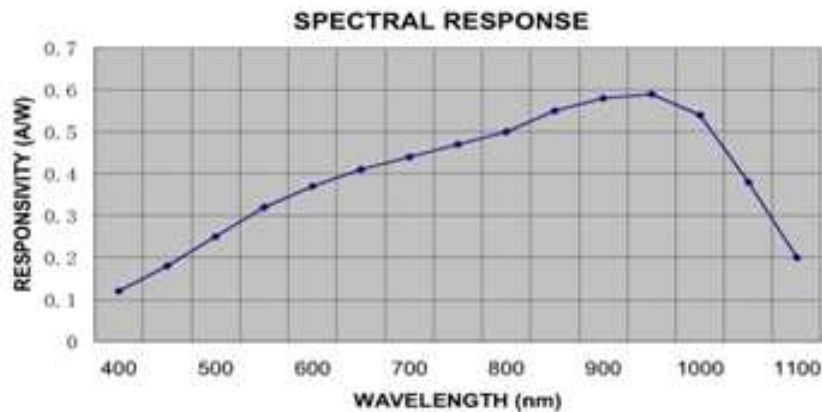


Specifications and Ratings

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 _f =100μA			0.70		V
Reverse Voltage	V _r	I _r =100μA	50				V
Shunt Resistance	R _{sh}	±10mV	40				MΩ
Capacitance	C _t	VR =5V, f=1MHz		19			pF
Spectral Sensitivity	λ		400		1080		nm
Rise Time/Fall Time	T _r /T _f	V _r =0V, RI=50Ω			350		nSec
Responsivity	R	λ =540nm	0.28				A / W
Temp. Coef. Of Isc	β _t				0.18		%

MEAS DETECTOR ASSEMBLY EPM-4001

SpO₂ Optical Sensor Component



Ordering Information

Description	Model	Part Number
Detector Assembly; Lead Frame; 8.07 mm ²	EPM-4001	20-0696

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