

## MEAS DETECTOR ASSEMBLY EPM-5000 SERIES

### SMT optical sensor component

- Dual Drive
- Pulse Oximetry Component
- Clear Epoxy
- Reflow Solderable

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 (TE) Surface Mounted Technology (SMT) optical components provide leading accuracy in oxygen level detection.

With more than 27 years of proven reliability and expertise, TE has designed SMT 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-5000 detector assembly uses a silicon planar diffused photodiode specially designed for medical applications. It features high efficiency and fast response. The EPM-5001 detector assembly is spectrally matched to emitter assemblies ELM-5001, and ELM-5002.

## MEAS EMITTER ASSEMBLY EPM-5000 SERIES

SMT Optical Sensor Component

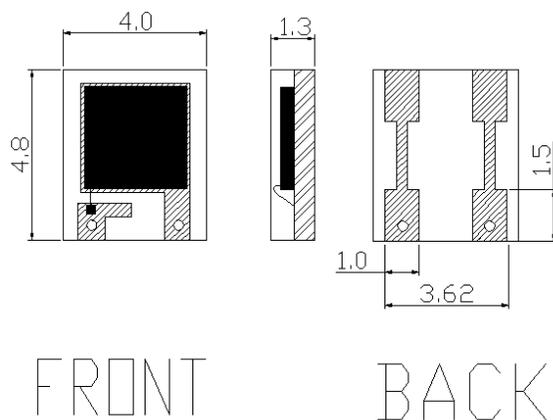
### Features

- Fast Response
- Matched to 660nm Emitter
- High Efficiency
- Clear Epoxy Lens
- Compact Package
- Active Area: 8.07mm<sup>2</sup>

### Applications

- Pulse Oximetry
- SpO<sub>2</sub> Finger/Ear Reusable Probes
- SpO<sub>2</sub> Disposable Strip or Butterfly Probes

### Dimensions (unit: mm)

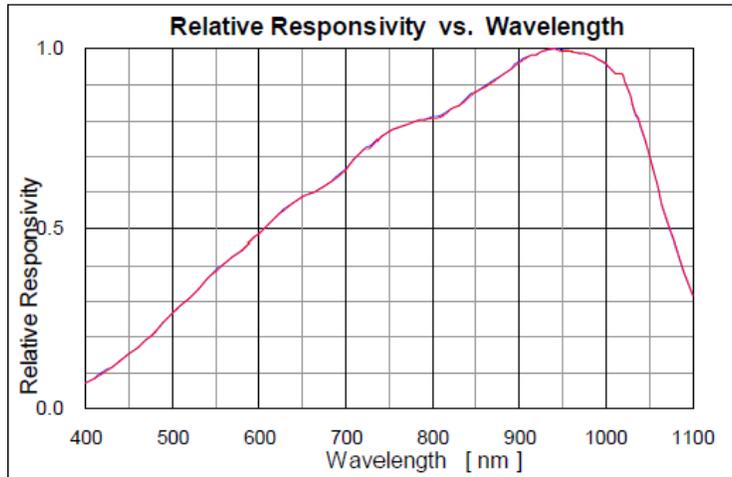


### Specifications and Ratings

Parameter @ 25°C	Symbol	Conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	V <sub>R</sub>	I <sub>F</sub> =100uA	33			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =100uA			0.7	V
Shunt Resistance	R <sub>SH</sub>	@10V	100			MΩ
Max. Power Diss.					150	mW
Junction Cap.	C <sub>J</sub>	V <sub>R</sub> =0V		70		pF
Responsivity		660nm		0.42		A / W
Rise / Fall Time	T <sub>R</sub>	V <sub>R</sub> =0V, R <sub>L</sub> =50Ω			350	nsec
Dark Current		10V			30	nA

# MEAS EMITTER ASSEMBLY EPM-5000 SERIES

SMT Optical Sensor Component



## NOTES:

Operation Temperature: -20 to 80°C

Storage Temperature: -30 to 80°C

Moisture Protection: Components must be baked at 120°C for 72 hours before use and used up within 8 hours after baking

Reflow soldering temperature: Max. Temperature Range: 230 – 250°C.

## Ordering Information

Description	Model	Part Number
Detector Assembly; SMT Optic; 8.07 mm <sup>2</sup>	EPM-5001	10104019-20

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