

## 85D62K4

## PIN/Preamp 62kHz 650nm / 850nm

### Description

This optical detector consists of a high sensitive Si-PIN photodiode and a low noise transimpedance amplifier (TIA). It is designed for detection from DC up to 62kHz. The preamplifier's linearity and low thermal drift makes it ideal for various applications.

### Features

- Analogue amplified voltage output
- Low thermal drift
- High interference rejection

### Applications

- Process Monitoring
- Environmental Monitoring
- General Industries



Device can differ from picture.  
For details and pin out please refer to the drawing.

### Absolute Maximum Ratings

Parameter	Symbol	min.	max.	Unit
DC Supply Voltage (between $V_{CC+}$ -terminals and $V_{CC-}$ -terminals)	$V_{CC+}-V_{CC-}$	-0.3	36	V
Operating Temperature	$T_{OP} = T_C$	-20	+80	°C
Storage Temperature	$T_{stg}$	-30	+100	°C
Soldering Temperature / Soldering Time	$T_{sold}/t_{sold}$		260/10	°C/s

### Recommended Operating Conditions

Parameter	Symbol	min.	max.	Unit
DC Supply Voltage (between $V_{CC+}$ -terminals and $V_{CC-}$ -terminals)	$V_{CC+}-V_{CC-}$	7	36	V

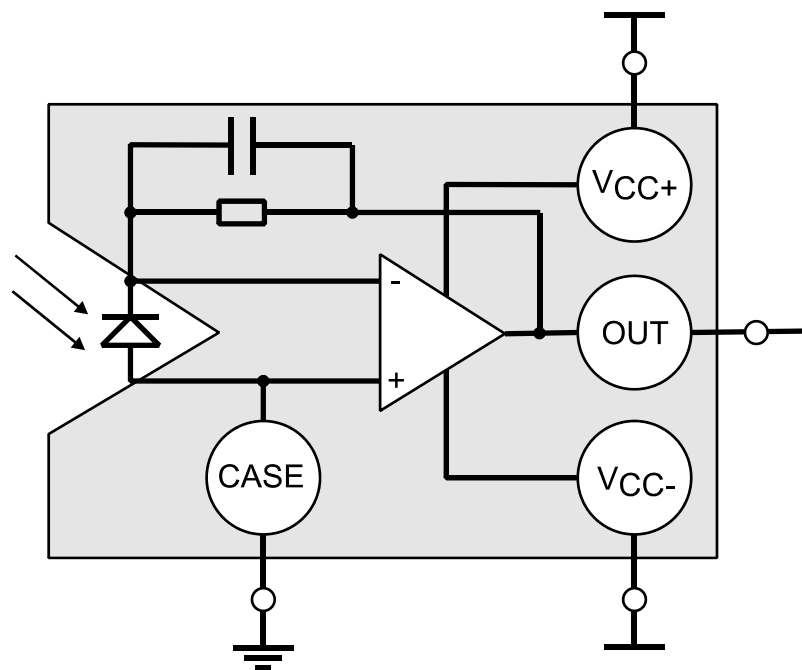
## Optical and Electrical Characteristics

$V_{CC+}=+15V, V_{CC-}=-15V, T_C=25^{\circ}C \pm 2^{\circ}C$

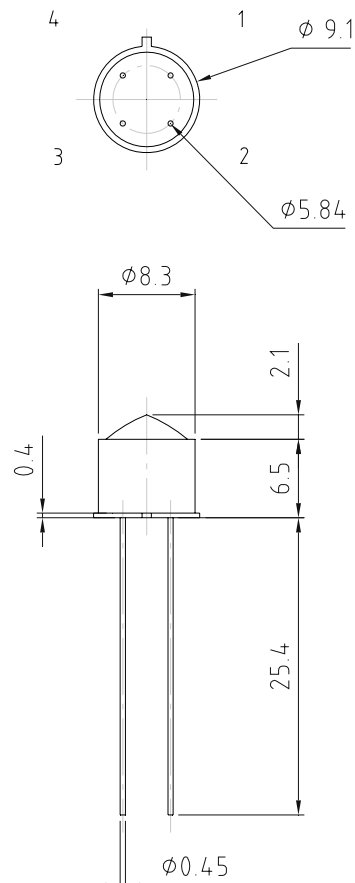
Parameter	Symbol	Condition	min.	typ.	max.	Unit
Supply Current	$I_{CC}$		-	4	6	mA
Power Dissipation	PD		-	120	180	mW
Dark Level Noise (RMS)	$N_{DARK}$		-	1.5	-	mV
Output Offset (MAX)	$V_{OFF}$		-7	-	+7	mV
Irradiance Responsivity	$R_E$	$E = 10nW/mm^2$ $\lambda = 850nm$	100	230	-	$V/(\mu W/mm^2)$
Frequency Response (-3dB)	$f_{-3dB}$		-	62	-	kHz
Output Current (Sink/Source)	$I_{IN}/I_{OUT}$		-	-	1/10	mA
Step Response (Rise/Fall)	$t_r/t_f$		-	8.0	-	$\mu s$
Saturation	$V_{SAT+}$ $V_{SAT-}$		-	-	+12 -14	V
Numerical Aperture	NA		-	0.17	-	-

Incident irradiance increases  $V_{OUT}$

## Functional Schematic / Typical Application Circuit



## Drawing



Pinout acc. to specification  
pins solderable acc. to specification  
all dimensions in mm

### Pin out

Pin	85D62K4
1	Case
2	OUT
3	V <sub>CC+</sub>
4	V <sub>CC-</sub>

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